NOTE

This Microfiche meets the quality requirements of the American National Standard for Microfiche of Documents (ANSI PH5.9-1975). However, because of imperfections in the document from which it was made, it contains images that are illegible or difficult to read. The source document for this microfiche is the best copy that could be obtained prior to filming.

Congressional Information Service, Inc.
Washington, D.C.

CIS

WATER RESOURCE DEVELOPMENT BILLS

HEARING

BEFORE THE

SUBCOMMITTEE ON WATER AND POWER

OF THE

COMMITTEE ON ENERGY AND NATURAL RESOURCES UNITED STATES SENATE

NINETY-SEVENTH CONGRESS

SECOND SESSION

ON

S. 956

A BILL TO AMEND THE RECLAMATION SAFETY OF DAMS ACT OF 1978 TO AUTHORIZE ADDITIONAL APPROPRIATIONS, AND FOR OTHER PURPOSES

S. 1573

A BILL TO AMEND THE WATER RESOURCES DEVELOPMENT ACT OF 1976 WITH RESPECT TO LAKE OSWEGO, AND FOR OTHER PURPOSES

S. 1621

A BILL TO AUTHORIZE THE REPLACEMENT OF EXISTING PUMP CASINGS IN SOUTHERN NEVADA WATER PROJECT PUMPING PLANTS 1A AND 2A, AND FOR OTHER PURPOSES

S. 2177

A BILL TO AMEND TITLE III OF THE COLORADO RIVER BASIN PROJECT ACT, PUBLIC LAW 90-537 (82 STAT. 885), AS AMENDED BY PUBLIC LAW 95-578 (92 STAT. 2471), AND PUBLIC LAW 96-375 (94 STAT. 1505)

APRIL 22, 1982

Publication No. 97-82

Printed for the use of the
Committee on Energy and Natural Resources

U.S. GOVERNMENT PRINTING OFFICE
95-462 O WASHINGTON : 1982

S311-41

COMMITTEE ON ENERGY AND NATURAL RESOURCES

JAMES A. McCLURE, Idaho, *Chairman*

MARK O. HATFIELD, Oregon
LOWELL P. WEICKER, Jr., Connecticut
PETE V. DOMENICI, New Mexico
MALCOLM WALLOP, Wyoming
JOHN W. WARNER, Virginia
GORDON J. HUMPHREY, New Hampshire
FRANK H. MURKOWSKI, Alaska
DON NICKLES, Oklahoma
JOHN P. EAST, North Carolina
JOHN HEINZ, Pennsylvania

HENRY M. JACKSON, Washington
J. BENNETT JOHNSTON, Louisiana
DALE BUMPERS, Arkansas
WENDELL H. FORD, Kentucky
HOWARD M. METZENBAUM, Ohio
SPARK M. MATSUNAGA, Hawaii
JOHN MELCHER, Montana
PAUL E. TSONGAS, Massachusetts
BILL BRADLEY, New Jersey

Michael D. Hathaway, *Staff Director*
Charles A. Trabandt, *Chief Counsel*
D. Michael Harvey, *Chief Counsel for the Minority*

Subcommittee on Water and Power

FRANK H. MURKOWSKI, Alaska, *Chairman*

MARK O. HATFIELD, Oregon
LOWELL P. WEICKER, Jr., Connecticut
MALCOLM WALLOP, Wyoming
DON NICKLES, Oklahoma

JOHN MELCHER, Montana
WENDELL H. FORD, Kentucky
PAUL E. TSONGAS, Massachusetts
BILL BRADLEY, New Jersey

James A. McClure and Henry M. Jackson are Ex Officio Members of the Subcommittee
Russell R. Brown, *Professional Staff Member*

CONTENTS

Page
S. 956 2
Department of the Interior report 3
S. 1573 7
S. 1621 8
S. 2177 10

STATEMENTS

Broadbent, Hon. Robert N., Commissioner, Bureau of Reclamation, Department of the Interior 12, 14, 38, 43
DeConcini, Hon. Dennis, a U.S. Senator from the State of Arizona 97
Halvorsen, Carl, representative of the Lake Oswego Corp., Portland, Oreg 48, 50
Hatfield, Hon. Mark O., a U.S. Senator from the State of Oregon, accompanied by Jack Kennedy and Carl Halvorsen, representatives of the Lake Oswego Corp., Portland, Oreg 45, 47
Kennedy, Jack, representative of the Lake Oswego Corp., Portland, Oreg 48, 50
List, Hon. Robert, Governor, State of Nevada 71
Murkowski, Hon. Frank H., a U.S. Senator from the State of Alaska 1
Nygaard, Kristina, Acting Assistance General Counsel for Hydroelectric Licensing, Federal Energy Regulatory Commission 60
O'Meara, J. W. "Pat", executive vice president, National Water Resources Association, Washington, D.C 99, 102
Paff, Donald L., general manager and secretary, board of directors, Las Vegas Valley Water District, Las Vegas, Nev 84
Steiner, Wesley E., director, Arizona Department of Water Resources, on behalf of Hon. Bruce Babbitt, Governor, State of Arizona 80
Sudweeks, Duane R., director, Colorado River Commission of Nevada, on behalf of Hon. Robert List, Governor, State of Nevada 88
Tower, Hon. John, a U.S. Senator from the State of Texas 25

APPENDIXES

Appendix I

Historical material submitted by Carl Halvorsen and Jack Kennedy, Lake Oswego Corp 109

Appendix II

Additional statements and communications submitted for the record 162

WATER RESOURCE DEVELOPMENT BILLS

THURSDAY, APRIL 22, 1982

U.S. SENATE,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
SUBCOMMITTEE ON WATER AND POWER,
Washington, D.C.

The subcommittee met, pursuant to notice, at 10 a.m., in room 3110, Dirksen Office Building, Hon. Frank H. Murkowski, presiding.

Present: Senators Murkowski and Hatfield.

Also present: Russell R. Brown, professional staff member and Craig Gannett, counsel for the minority.

OPENING STATEMENT OF HON. FRANK H. MURKOWSKI, A U.S. SENATOR FROM THE STATE OF ALASKA

Senator **MURKOWSKI**. Good morning. The hearing before the Subcommittee on Water and Power of the Senate Committee on Energy and Natural Resources is in order.

The hearing this morning is to take testimony from administration and public witnesses on four bills before the subcommittee. Briefly, these bills include S. 956, sponsored by Senators DeConcini, Goldwater, and Wallop, would amend the Reclamation Safety of Dams Act of 1978 to authorize additional appropriations; S. 1573, sponsored by Senator Hatfield, would amend the Water Resources Development Act of 1976 with respect to Lake Oswego in Oregon; S. 1621 sponsored by Senators Cannon and Laxalt, would authorize the replacement of existing pump casings in the southern Nevada water project pumping plants; and S. 2177, sponsored by Senators DeConcini and Goldwater, would amend title III of the Colorado River Basin Project Act with respect to the central Arizona project.

This is a full agenda and I am hopeful that we can give each witness ample opportunity to express their views. Some of you have come a long way at considerable expense to testify and we are certainly appreciative of that fact, and I think it represents a testimonial to your interest.

We will do our best to accommodate each one of you. The hearing record will remain open for 2 weeks to permit submission of additional material.

The texts of the four measures as well as related executive communications will be included in the hearing record at this point.

[The texts of the bills and executive communication follow:]

97TH CONGRESS
1ST SESSION

S. 956

To amend the Reclamation Safety of Dams Act of 1978 to authorize additional appropriations, and for other purposes.

IN THE SENATE OF THE UNITED STATES

APRIL 9 (legislative day, FEBRUARY 16), 1981

Mr. DECONCINI (for himself, Mr. GOLDWATER, and Mr. WALLOP) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

---

A BILL

To amend the Reclamation Safety of Dams Act of 1978 to authorize additional appropriations, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That (a) section 5 of the Reclamation Safety of Dams Act of 1978 is amended by inserting "and for the fiscal year 1982 and ensuing fiscal years, not to exceed $450,000,000," after "$100,000,000,".

United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

APR 22 1982

Honorable James A. McClure
Chairman, Committee on Energy
and Natural Resources
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

We understand that S. 956 a bill "To amend the Reclamation Safety of Dams Act of 1978 to authorize additional appropriations, and for other purposes," is before your committee. We offer the views of the Department of the Interior for your consideration.

The Department recommends approval of S. 956 with suggested amendments.

S. 956 increases the sum authorized to be appropriated for carrying out the provisions of the Reclamation Safety of Dams Act (Act) from $100 million to $450 million.

The total estimated cost of safety of dams work proposed in Reclamation's fiscal year 1982 program is $103.7 million. In order to complete that work and to initiate other work which is currently identified, an increase in the existing $100 million appropriation ceiling is necessary. Our Safety Evaluation of Existing Dams examinations have identified an additional 35 dams that may require safety modifications. Frequently, the identified deficiencies exist because older dams were not designed to meet current standards, cannot safely pass newly calculated maximum hydrologic events, or cannot sustain estimated maximum seismic events. Other problems are experienced where dams have reduced life due to deterioration because they were constructed using inferior materials or presently outdated construction techniques. An estimated $500 million is needed for that additional work. However, future refinement and analysis may require additional increases. Moreover, Congressional oversight is already provided by the modification report and annual appropriations process. Therefore it is suggested that section 1 of the bill be amended as follows:

> "That Section 5 of the Reclamation Safety of Dams Act of 1978 (92 Stat. 2471) is amended to provide such sums as are necessary to carry out the provisions of this Act."

Modification reports will be prepared for congressional review as analyses are completed and the need for modification is affirmed.

To provide for full implementation of the Reclamation Safety of Dams Act, consistent with the President's program for economic recovery, we recommend four amendments to the Act.

The first is to amend the Act to modify the repayment requirements for safety-of-dams work. The Administration is committed to reducing the Federal budget and believes that beneficiaries of Federal projects should, in most cases, contribute to those projects. Our proposed amendment will provide for project beneficiary, State, and local participation in the cost of making Reclamation dams safe. We do not believe that safety costs per se should be exempted from reimbursement or cost sharing. In fact, since the beginning of the reclamation program the cost of building a safe dam has been allocated to authorized project purposes, usually through the separable-cost-remaining-benefit method, and have been subject to reimbursement or cost sharing on the same basis as the purpose to which allocated. This is appropriate as safety considerations permeate every aspect of dam design and construction. If the dam develops defects over time or if additional work is needed to meet current safety standards, there is no reason to forego that cost sharing or reimbursement that would have been due had the remedial work been incorporated into the initial construction. The long range effects of correcting safety problems without cost sharing or reimbursement is to make all replacement of existing investment free to its users and beneficiaries, and place the total cost on the general taxpayer. Our proposal recognizes that some irrigation districts may not be sufficiently profitable to repay the total allocated cost so the reimbursement amount is limited to the ability to pay. Given the current cost advantages of Federal hydroelectric power and municipal and industrial water supplies there is no need for forgiveness for these purposes. We recommend that a new section 2 be added to the bill as follows:

> Sec. 2. Section 4 of the Act is deleted and the following is substituted in lieu thereof:
>
> > "Sec. 4.(a) Costs hereafter incurred in the modification or replacement of structures under this Act shall be allocated to the current functions served by the dam, project, unit, or division, as determined by the Secretary at the time of completion of the work undertaken pursuant to this Act. Costs allocated to irrigation water service and capable of being repaid by the irrigation water users shall be reimbursed within 50 years of the year in which the work undertaken pursuant to this Act is substantially complete. Costs allocated to irrigation water service which are beyond the water users' capability to repay will be nonreimbursable. Costs allocated to recreation or fish and wildlife enhancement shall be reimbursed in accordance with the Federal Water Project Recreation Act (79 Stat. 213), as amended.
> >
> > (b) Costs allocated to the purpose of municipal, industrial, and miscellaneous water service, commercial power, and the portion of recreation and fish and wildlife enhancement costs reimbursable pursuant to the Federal Water Project Recreation Act shall be repaid within 50 years with interest. The interest rate used pursuant to this Act shall be determined by the Secretary of the Treasury, taking into consideration the average market yields on outstanding marketable obligations of the United States with approximately 5 years remaining to maturity, during the month preceding the fiscal year in which the costs incurred for work undertaken pursuant to this Act. The interest rate so determined on the unrecovered balance shall be redetermined every 5 years to reflect the average market yield at that time on outstanding marketable obligations with approximately 5 years remaining to maturity.

> (c) The Secretary is authorized to negotiate appropriate contracts with project beneficiaries providing for the return of reimbursable costs through water charges, ad valorem taxes, account charges, or other means he deems appropriate."

The second amendment provides authority for the Secretary of the Interior to construct replacement dams in lieu of modifying existing structures when a "least cost analysis" indicates that replacement is the least expensive and most technically sound method to mitigate a hazardous situation. We have encountered situations where it would be less expensive to abandon completely the existing dam and construct a new dam at a nearby location.

For instance, although the final determinations have not been made, early indications are that the Roosevelt Dam, Salt River Project, Arizona, would be overtopped and could fail if the newly calculated probable maximum flood were to occur. Also, occurrence of the maximum credible earthquake would probably destroy the existing dam. The appraisal grade cost estimate for modification of the dam, to withstand the occurrence of the probable maximum flood and to regulate that flood to avoid failure of the downstream dams, is approximately the same as constructing a totally new dam a quarter mile downstream on the Salt River. If the final seismic analysis verifies that the existing dam (even with the modifications to handle the probable maximum flood) will fail during the maximum credible earthquake, then additional modifications will have to be made. The additional cost of a new dam designed to withstand the maximum credible earthquake could be much less than modification of the existing dam.

In order to implement this authority we suggest the following amendment which adds a new section 3 to S. 956:

> Sec. 3. In line 2 of the preamble between the words 'dams' and 'for,' insert 'or to replace such dams'. In section 2, following the word 'modifications' insert the words 'or replacements'. In section 5, 6th line, following the word 'modify,' insert the words 'or replace'. Add the words 'or replacements' after the words 'modifications' in section 5. In section 5, the words 'or replacement' shall be inserted after the word 'modification' in lines 16, 17, and 20.

The third amendment we recommend is to revise section 5 of the Act. The Secretary of the Interior should be exempted from the modification report requirements of section 5 when safety modification costs are estimated to be $500,000 or less. This would relieve the Bureau of Reclamation of the costly and lengthy reporting and approval process and thus increase management efficiency on minor safety of dams modification work.

To incorporate this, we suggest the addition of a new section 4 to the bill:

> Sec. 4. Following the word 'fund' on line 5 of section 5 of the Act, insert the words 'exceeding $500,000'.

Fourth, we would provide authority to modify, for safety of dams purposes, those dams which were made a part of a Reclamation project by act of Congress. We have identified several such Reclamation project dams. Some were actually modified under the authority of project legislation, but title was never secured by the Federal Government.

We suggest that a new section 5 be added to the bill as follows:

> Sec. 5. The Act is further amended by adding a new section 12 as follows: "Sec. 12. Included within the scope of this Act are Fish Lake, Four Mile, Ochoco, Savage Rapids Diversion and Warm Springs Dams, Oregon; Como Dam, Montana; Little Wood River Dam, Idaho and related facilities which have been made a part of a Federal reclamation project by previous acts of Congress."

The Office of Management and Budget has advised that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely,

David C. Russell

David C. Russell

Acting Assistant SECRETARY

97TH CONGRESS
1ST SESSION

S. 1573

To amend the Water Resources Development Act of 1976 with respect to Lake Oswego, and for other purposes.

IN THE SENATE OF THE UNITED STATES

JULY 31 (legislative day, JULY 8), 1981

Mr. HATFIELD introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

---

A BILL

To amend the Water Resources Development Act of 1976 with respect to Lake Oswego, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 162 of the Water Resources Development Act of 1976 is amended by inserting the following at the end thereof: "Lake Oswego shall also be treated as nonnavigable for purposes of part I of the Act of June 10, 1920 (41 Stat. 1063 et seq.; 16 U.S.C. ch. 12, subchapter I).".

97TH CONGRESS
1ST SESSION

S. 1621

To authorize the replacement of existing pump casings in southern Nevada water project pumping plants 1A and 2A, and for other purposes.

IN THE SENATE OF THE UNITED STATES

SEPTEMBER 15 (legislative day, SEPTEMBER 9), 1981

Mr. CANNON (for himself and Mr. LAXALT) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

---

A BILL

To authorize the replacement of existing pump casings in southern Nevada water project pumping plants 1A and 2A, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Interior is authorized to procure, and provide for the installation of, twelve new stainless steel casings and minor appurtenant parts to replace twelve existing cast steel pump casings in pumping plants 1A and 2A of the southern Nevada water project, first stage.

Sec. 2. The Secretary is hereby authorized to negotiate with the original manufacturer for the procurement of the new stainless steel replacement casings.

Sec. 3. Costs incurred in the procurement of the twelve pump casings and minor appurtenant parts shall be borne by the United States and shall be nonreimbursable and nonreturnable. The State of Nevada shall install the twelve stainless steel casings and minor appurtenant parts at its cost in a manner satisfactory to the Secretary.

Sec. 4. There is hereby authorized to be appropriated for procurement of twelve stainless steel pump casings and minor appurtenant parts for southern Nevada water project pumping plants 1A and 2A the sum of $1,500,000 (July 1980 price levels), plus or minus such amounts, if any, as may be justified by reason of changes in procurement costs as indicated by engineering cost indexes applicable to the type of procurement involved: *Provided*, That, except as otherwise may be required by existing contracts, the United States shall incur no further liability with respect to the twelve pumps in pumping plants 1A and 2A of southern Nevada water project, first stage and no further expenditures or actions by the United States with respect to those pumps are either expressly or impliedly authorized by this Act.

97TH CONGRESS
2D SESSION

S. 2177

To amend title III of the Colorado River Basin Project Act, Public Law 90-537 (82 Stat. 885), as amended by Public Law 95-578 (92 Stat. 2471), and Public Law 96-375 (94 Stat. 1505).

IN THE SENATE OF THE UNITED STATES

MARCH 8 (legislative day, FEBRUARY 22), 1982

Mr. DECONCINI (for himself and Mr. GOLDWATER) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

---

A BILL

To amend title III of the Colorado River Basin Project Act, Public Law 90-537 (82 Stat. 885), as amended by Public Law 95-578 (92 Stat. 2471), and Public Law 96-375 (94 Stat. 1505).

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That Public Law 90-537 (82 Stat. 885), as amended is further amended to provide for cost indexing as may be justified by reason of ordinary fluctuations in construction costs.

Section 309(b), first sentence, is amended to read: "There is also authorized to be appropriated $100,000,000 for construction of distribution and drainage facilities for non-

Indian lands plus or minus such amounts, if any, as may be justified by reason of ordinary fluctuations in construction costs as indicated by engineering and cost indices applicable to the types of construction involved therein from the date of the Colorado River Basin Project Act.".

Senator **Murkowski**. We intend to deviate from the witness list as proposed in order to make certain accommodations. And therefore, we'll pull out of the hat, the first witness, the Honorable Robert N. Broadbent, Commissioner, Bureau of Reclamation, Department of the Interior, Washington, D.C.

Mr. Commissioner, we welcome you to the witness table this morning, and I commend you on being picked first.

You may proceed.

STATEMENT OF HON. ROBERT N. BROADBENT, COMMISSIONER, BUREAU OF RECLAMATION, DEPARTMENT OF THE INTERIOR

Commissioner **Broadbent**. Thank you very much Senator Murkowski. It's nice to be here.

What order did you want us to proceed in?

Senator **Murkowski**. I think what we'll do is go down the line numerically with the safety of dams bill first. And if you want to deviate from that, well I'm sure we can accommodate you.

Commissioner **Broadbent**. That's fine, Mr. Chairman.

If I could we would like to present our statement for the record and I would like to summarize it.

Senator **Murkowski**. It's most appropriate, and your entire statement as prepared will be entered into the record and we appreciate the summary.

Commissioner **Broadbent**. We are appearing today to support S. 956, the bill to amend the Reclamation Safety of Dams Acts of 1978 with amendments.

In 1978 when the current Dam and Safety Act was under consideration by Congress, reclamation studies had identified 27 dams which required structural modification to enable them to withstand safely the inflow design flood and/or the maximum predictable earthquake. Of those 27, modifications were completed on 10. Modifications were authorized and underway on four, and work on the remaining 13 dams required authorization.

Because of the additional dam safety modification work, cost escalation on the programed work and increased emphasis on the structural safety criteria, the dam safety program will cost more than earlier envisioned. Therefore, we need to amend the act to raise the authorized appropriation ceiling and to require cost sharing for project beneficiaries.

In all, only about 15 percent of reclamation dams require any substantial safety related corrective actions. Most of those are in the older single purpose projects and their failure would affect population centers. As you are aware we are currently operating many dams that were designed and constructed in the early 1900's. Engineering in those days tended to be more a practice of judgment developed from experience rather than a scientific fact. In fact, it was a credit to those early engineers that their dams performed so well and that so few of them have required remedial action.

All reclamation dams have been reviewed for dam safety problems including an onsite examination by a highly skilled technical review team and analysis by experts in the field of hydrology, seismology, geotechnology, and geology. The most significant and serious problems are being dealt with according to priority. I therefore recommend that the act be amended to authorize such appropriations as may be necessary to carry out the purposes of the act rather than specify an appropriation ceiling.

Congressional oversight is provided through the approval of the modification report and the annual appropriation process.

We offer four amendments: One, to amend the act to modify the repayment requirements for the safety of dam work. We recommend a plan of cost sharing which would allocate the cost of dam safety work to current project purposes as determined by the Secretary of the Interior. Further, we recommend that the portion allocated to irrigation be reimbursable only to the extent of the irrigator's/water user's ability to pay.

The second amendment would provide authority for the Secretary of the Interior to replace reclamation dams for safety purposes as well as to modify them.

The third amendment is a request for relief from some of the reporting requirements on section 5. In this instance, we ask that a dam safety modification report not be required for work under $500,000.

The fourth amendment is a particularly difficult problem. Seven dams in our Pacific Northwest region have dam safety problems of varying degrees of seriousness and we do not have authority to expend appropriated funds on this. The dams are Fish Lake, Four Mile, Ochoco, Savage Rapids, and Warm Springs Dams in Oregon; Como Dam, Montana, and Little Wood River Dam, Idaho.

These seven dams, incorporated into reclamation projects for project purposes, were substantially modified by acts of Congress, but title was never accepted by the United States. The total estimated cost of the corrective works would be about $5.5 million in addition to the previous estimates. We recommend these dams be included in the authority of the Reclamation Safety of Dams Act.

Again, Mr. Chairman, I thank you for the opportunity to appear before you on the reclamation safety dams program and I would be pleased to answer any questions.

[The prepared statement of Commissioner Broadbent on S. 956 follows:]

STATEMENT OF THE COMMISSIONER OF RECLAMATION WITNESS BEFORE THE SUBCOMMITTEE ON WATER AND POWER, U.S. SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES

April 22, 1982

Mr. Chairman and members of the Subcommittee, we are appearing today to support S. 956, a bill to amend the Reclamation Safety of Dams Act of 1978 with amendments. I appreciate the opportunity to describe to you the progress achieved, current dam safety program direction and future needs and to urge adoption of several amendments to the bill, which we believe will considerably enhance program management, increase efficiency and reduce the total program cost to the United States.

Federal agencies in general, and Reclamation in particular, are implementing dam safety programs and making decisions consistent with the Federal Guidelines for Dam Safety dated June 25, 1979. Those guidelines call for selection of flood and earthquake design magnitudes so as to minimize the chance of their being exceeded, where loss of human life or significant property damage is a concern. Reclamation's evaluation criteria for existing dams follows those guidelines in determining the existence of a dam safety hazard. A dam safety hazard is defined as a structural, operational or geographically induced deficiency which could cause or contribute to a dam failure, either with the passage of time or by a specific natural event.

If a dam safety hazard exists, the decision for corrective action would take into account several variables such as the number of people endangered, the ease of evacuation, the opportunity to give advance warning of impending structural failure, the seriousness or significance of the problem, the cost of structural repair, and the feasibility and effectiveness of reservoir operating restrictions. Of course, the protection of life and property is uppermost in the decision as to what corrective action is to be taken, but the decision is also heavily weighted toward the most economical remedial action.

Now, I would like to review some of the background leading to S. 956. In 1965, Reclamation initiated a detailed review of the flood hydrology for its dams after Gibson Dam, on the Sun River Project in Montana, was overtopped. During that review, several dams were identified as having potentially serious safety problems. However, lack of funds, personnel, and adequate authority prevented Reclamation from pursuing a program of full corrective action. In some instances, a degree of protection was provided by reducing the operating level of the reservoir. But this action was only an interim solution and frequently resulted in a reduced water supply.

In 1978, when the current dam safety act was under consideration by the Congress, Reclamation studies had identified 27 dams which required structural modification to enable them to withstand, safely, the inflow design flood and/or the maximum credible earthquake. Of those 27, modifications were completed on 10. Modifications were authorized and underway on 4. Work on the remaining 13 dams required authorization.

The Reclamation Safety of Dams Act of 1978 provided that much needed authority. With passage of the act, Reclamation initiated corrective action on those of its dams with safety deficiencies which could lead to failure and would pose a hazard to downstream human life or cause significant property damage. Since passage of the act, modification work has been essentially completed on two dams, is programmed on 11 dams and is expected to be necessary on an additional 35 dams. Those dams are distributed throughout the 17 Western States. Because of additional dam safety modification work, cost escalation on programmed work, and increased emphasis upon structural safety criteria, the dam safety program will cost more than we earlier envisioned. Therefore, we need to amend the act to raise the authorized appropriations ceiling and to require cost sharing by project beneficiaries.

In all, only about 15 percent of Reclamation dams require any substantial safety-related corrective action. Most of those are in the older, single-purpose projects, and their failure would affect population centers. As you are aware, we are currently operating many dams that were designed and constructed in the early 1900's. Engineering in those days tended to be more a practice of judgement developed from experience rather than based on scientific fact. In fact, it is a credit to those early engineers that their dams have performed so well and that so few of them require remedial action. In most instances, the deficiencies are based in technological advances in flood hydrology and seismicity. Some concrete structures have not lasted as long as might have been expected and that is generally traced to the early concrete mix designs. It is a rare instance where dam safety corrective action is necessitated by lack of proper operations and maintenance. However, when that happens, the operating entity is obliged to initiate the corrective action at its own cost.

All Reclamation dams have been reviewed for dam safety problems, including an on-site examination by a highly skilled technical review team and analysis by experts in the fields of hydrology, seismology, geothechnology and geology. The detailed analysis work is not complete and might require several more years, due primarily to some unusual technical details and current lack of resources. The most significant and serious problems are being dealt with according to priority. We do however, have enough data to project our future needs. In order to get this program in full gear, we must reduce the cost by increasing our operating efficiency and we must reduce the drain on the treasury by passing a portion of the cost to those people who directly benefit from the project. Preliminary information previously made available indicated that a $450 million appropriation ceiling would be appropriate. However, that is no longer the case. The total estimated cost for new work is approximately $510 million. The cost of work completed, underway or programmed is $129 million. Therefore, a ceiling of at least $650 million would be necessary.

Future refinement and analysis may change our estimate either up or down. I, therefore, recommend that the act be amended to authorize such appropriations as may be necessary to carry out the purposes of the act, rather than to specify an appropriation ceiling. Congressional oversight is provided through approval of the modification report and the annual appropriations process.

There are several areas of concern where amendments would aid in full implementation of the Reclamation Safety of Dams Act and provide for greater consistency with President Reagan's program for economic recovery.

We offer four amendments:

1. Amend the Act to modify the repayment requirements for safety of dams work. While the Administration is committed to dam safety it also believes that identifiable beneficiaries of Federal projects should contribute to the cost of maintaining or upgrading them. We recommend a plan of cost sharing which would allocate the cost of dam safety work to current project purposes, as determined by the Secretary of the Interior. Those payments would extend over a 50-year period after construction is completed. Further, we recommend that the portion allocated to irrigation be reimbursable only to the extent of the irrigation water user's ability to pay. The remainder of that allocation would be nonreimbursable and would be borne by the U.S. Other allocated costs would be treated in accordance with then existing Reclamation law. Since this amendment is quite long, I would be glad to provide our proposed draft language for the record.

We do not believe that safety costs per se should be exempted from reimbursement or cost sharing. In fact, since the beginning of the reclamation program the cost of building a safe dam has been allocated to authorized project purposes. Normally those costs have been subject to reimbursement or cost sharing on the same basis as the purpose to which allocated. This is appropriate as safety considerations permeate every aspect of dam design and construction. If a dam develops defects over time, or if additional work is needed to meet current safety standards, there is no reason to forego cost sharing or reimbursement that would have been due, had the remedial work been incorporated into the initial construction. The long range effects of correcting safety problems without cost sharing or reimbursement is to make all replacement of existing investment free, to its users and beneficiaries, and place the total cost on the general tax payer. Our proposal recognizes that some irrigation districts may not be sufficiently profitable to repay the total allocated cost so the reimbursement amount is limited to the ability to pay. Given the current cost advantages of Federal hydroelectric power and municipal and industrial water supplies there is no need for forgiveness for these purposes.

In the event that water users would decline to contribute to the cost of dam safety modification work, alternative action would be necessary. Such action could include operating restrictions on reservoir storage together with installation of downstream warning systems. However, warning systems would also be a project cost. Dam breaching is another alternative, but it is usually expensive and results in complete loss of water supply.

2. The second amendment would provide authority for the Secretary of the Interior to replace Reclamation dams for dam safety purposes as well as to modify them. We have encountered situations where it would be substantially less costly to replace an old dam which has several significant safety problems, rather than to try to modify it.

3. The third amendment is a request for relief of some of the reporting requirements under section 5 of the Act. In this instance, I ask that a dam safety modification report not be required for work costing $500,000 or less. Elimination of the costly and lengthly reporting and approval process for minor work would increase management efficiency.

4. The fourth amendment is a particularly difficult problem. Seven dams in our Pacific-Northwest Region have dam safety problems of varying degrees of seriousness and we do not have authority to expend appropriated funds on them. The dams are: Fish Lake, Four Mile, Ochoco, Savage Rapids and Warm Springs Dams, Oregon; Como Dam, Montana and Little Wood River Dam, Idaho.

Those seven dams, incorporated into Reclamation projects for project purposes, were substantially modified by acts of Congress, but title was never accepted by the United States. The total estimated cost of the corrective works would be about $5.5 million in addition to the previous estimates. We recommend those dams be included in the authority of the Reclamation Safety of Dams Act.

In total, the amendments will provide for several important aspects of the dam safety program. They will provide for a realistic management approach to the problem of cost ceiling, and offer project beneficiaries increased opportunity to share in dam safety corrective work. With cost sharing and increased efficiencies we should be able to increase the number of dams we are working on.

The proposed amendments provide for elimination of costly reports for minor work and provide appropriate authority to construct replacement dams when that alternative is the least cost solution to a dam safety problem. And finally, the amendments recognize the needs of old project dams, generally viewed as Federal dams, but never accepted in ownership.

Again, thank you for the opportunity to discuss the Reclamation dam safety program and to recommend amendments to your current proposal. I would be pleased to answer any questions you have.

Senator MURKOWSKI. Thank you Commissioner Broadbent. A couple of things come to mind offhand. Most of this work in the remaining 13 dams; what would that consist of?

Commissioner BROADBENT. It would amount to, in the remaining 13 dams, mostly spillway work, since expansion of the spillways is the primary problem. There is some about overtopping where it might wash the dam out.

Senator MURKOWSKI. That includes the Theodore Roosevelt Dam——

Commissioner BROADBENT. Yes.

Senator MURKOWSKI. I had an opportunity to visit there about 3 weeks ago and I was certainly impressed. I can't help but reflect on the ability of those engineers in the early 1900's, to put a dam like that together. I gather they built their own cement plant right onsite and built a magnificent structure.

Commissioner BROADBENT. I have an old picture of those stone carvers when they were building the dam.

Senator MURKOWSKI. It shows you what you can do when you set your mind to it.

The estimated authorization for these projects, the 13 remaining, as I understand it, we have seven more that you have included in your fourth amendment; is that correct?

Commissioner BROADBENT. Yes. And then there are another 35. There are about 55 total dams.

Senator MURKOWSKI. There is another one in Texas, isn't there? Twin Buttes Dam, Tex.?

Commissioner BROADBENT. It does have safety of dams problems. It has seepage problems and uplifting problems.

Senator MURKOWSKI. I have a letter from Senator Tower endorsing your proposal with the addition of Twin Buttes Dam. Are you familiar with that?

Commissioner BROADBENT. I haven't seen Senator Tower's proposal, but I know that Twin Buttes was put in by the House committee and there was testimony on it. We did provide testimony on Twin Buttes Dam, but it didn't clear the Department.

[Senator Tower's letter follows:]

JOHN TOWER
TEXAS

COMMITTEES:
ARMED SERVICES
CHAIRMAN
BANKING, HOUSING, AND
URBAN AFFAIRS
BUDGET

United States Senate
WASHINGTON, D.C. 20510

April 19, 1982

The Honorable Frank H. Murkowski
Chairman
Subcommittee on Water and Power
Committee on Energy and Natural Resources
3106 Dirksen Senate Office Building
Washington, D. C. 20510

Dear Frank:

I understand that the Subcommittee on Water and Power of the Committee on Energy and Natural Resources, which you chair, will be hearing testimony on S.956, a bill to amend the Reclamation Safety of Dams Act of 1978. As you know, modifications are urgently needed on some of the dams authorized in the Act, and therefore consideration of revising the authorization ceiling is critical. Twin Buttes Dam, located in San Angelo, Texas, requires immediate attention to prevent further structural damage and facilitate more efficient water storage.

Twin Buttes Dam was constructed in 1963, and serves as the principle source of water for the City of San Angelo and as a source of irrigation water for the surrounding West Texas agricultural community. The dam has shown significant levels of seepage since the construction phase, and that seepage has increased the hydrostatic pressure at two points in the dam to the critical level. In an effort to repair the dam, which is vital to both the City of San Angelo and to area agriculture, the City undertook projects designed to alleviate the problem. These efforts were not, however, successful. As a result, the Twin Buttes Dam has been held at low levels to avoid dam failure. This has caused a reduction in the amount of city water reserves and in the water available to farmers dependent upon irrigation. In addition, in the event of heavy rains or flash flooding, water released from the dam to prevent blow-out could cause substantial area flooding.

This condition must be corrected. Currently, city officials working with the Bureau of Reclamation have agreed to construct water relief wells in order to reduce the hydrostatic pressure along the dam. This project has been authorized and is being pursued at an estimated cost of $2.6 million.

One major question now remains: who will pay the cost for repair of this facility? The Reclamation Safety of Dams Act originally provided that normal age and wear repair costs were to be borne by the dam users. At Twin Buttes Dam, however, the situation results from original design and construction deficiencies, not from age of the structure. This dam was not built properly in 1963, and it should not now be the responsibility of the users to pay for construction error. This conclusion is supported by language in the Act which states that, except where the modifications in the structure must be made because of age and normal deterioration, or from the failure to perform normal maintainence, the costs of the work should be non-reimbursable under Federal Reclamation Law.

I would therefore like to request you to consider an amendment to S.956 which would address this situation. This amendment grants authority to modify dams in like circumstances with Twin Buttes, by bringing them under the purview of the reclamation project authorized by Congress. Further, it provides specific authorization for the planned and ongoing work at Twin Buttes Dam now being effected to remedy an original design defect. I have attached a copy of the proposed language for your consideration.

San Angelo lies in a semi-arid part of western Texas. The City is dependent upon the water reserve supplied by the Dam, since very little other surface water is available and water wells do not provide an adequate water supply. Further, the land around San Angelo is fertile and can produce a variety of crops given adequate irrigation. Water, though, is the key to the prosperity of the area and the Twin Buttes Dam is essential to the efficient reclamation and storage of water.

I know that your Subcommittee, in making its recommendations on this bill, will give due consideration to the merits of this amendment. If there is anything I can do to assist you in your study of this issue, please do not hesitate to contact me.

Sincerely,

John

John Tower

JGT:lhk

Enclosure

AMENDMENT NO. ____________ **Ex.** ______ **Calendar No.** ______

Purpose: ____________

IN THE SENATE OF THE UNITED STATES— ______ **Cong.,** ______ **Sess.**

S. 956

H.R. ____________ **(or Treaty** ____________**)**
SHORT TITLE

(title) A bill to amend the Reclamation Safety of Dams Act of 1978.

( ) **Referred to the Committee on** ____________
and ordered to be printed

( ) **Ordered to lie on the table and to be printed**

Intended to be proposed by ____________

Viz:

"Sec._____. The Act is further amended by adding a new Section 12 as follows: 'Section 12. Included within the scope of this Act are Fish Lake, Four Mile, Ochoco, Savage Rapids Diversion and Warm Springs Dams, Oregon; Como Dam, Montana; Little Wood River Dam, Idaho; Twin Buttes Dam, Texas and related facilities; Provided, That the cost of foundation treatment, drainage, and instrumentation work planned or underway at Twin Buttes Dam, Texas, shall be nonreimbursable and nonreturnable under Federal reclamation law.'"

EXPLANATION

The amendment would provide authority to modify, for safety of dams purposes, those dams which were made a part of a reclamation project by act of Congress. There are several such reclamation project dams. Some were actually modified under the authority of project legislation, but title was never secured by the Federal Government. The repayment for planned and ongoing work at Twin Buttes Dam to correct a construction defect requires specific authorization because this unique situation was not contemplated under the guidelines of the original act.

Senator **MURKOWSKI**. Is it your intent that Twin Buttes not be included in this proposal?

Commissioner **BROADBENT**. It isn't in our testimony.

Senator **MURKOWSKI**. Is it in the dam safety parameters?

Commissioner **BROADBENT**. Yes sir.

Senator **MURKOWSKI**. Is there good reason that it shouldn't be included?

Commissioner **BROADBENT**. I think it was a feeling of the administration that it would probably be taken care of by the users out there.

Senator **MURKOWSKI**. Do you know if the users agree with that?

Commissioner **BROADBENT**. No sir, they do not.

Senator **MURKOWSKI**. Who owns this dam?

Commissioner **BROADBENT**. It's a Federal dam.

Senator **MURKOWSKI**. Well wouldn't we be working against precedent in some respects to expect users to pay for Twin Buttes when it's a Federal dam and the rest of these dams are Federal dams and we don't expect the users to pay for dam safety?

Commissioner **BROADBENT**. Yes. I would think that might be a logical conclusion.

Senator **MURKOWSKI**. I guess my question is you're the expert, where do we go from here on resolving it?

Commissioner **BROADBENT**. Well I think the House solved it by putting it back in.

Senator **MURKOWSKI**. You're suggesting we might follow the example of the House?

Commissioner **BROADBENT**. That's one suggested answer.

Senator **MURKOWSKI**. That would be one way to do it.

Commissioner **BROADBENT**. Yes sir.

Senator **MURKOWSKI**. Are there any other structures that you believe should come under the act?

Commissioner **BROADBENT**. I know there is concern in the State of Oklahoma about one dam, and you may get some testimony from one of the Senators in Oklahoma about Foss Dam, part of the Washita project. That is the same type of dam, where it was completed. When time came for filling, it was discovered that there were seepage and uplifting problems, which is about the same circumstances as Twin Buttes. So you may get a request on that.

Senator **Murkowski**. Now if we include these additional structures, is the $650 million in your opinion going to be sufficient?

Commissioner **Broadbent**. Yes I think we may have a little slack in there. We had a $640 million estimate. We asked for $650 million. I guess it depends on inflation and escalating costs.

Senator **Murkowski**. It's my understanding you have considerable experience with the safety of dams programs, and other than those points brought out in your statement, are there any other areas where you feel you need additional authority in order to make your program, your responsibility work better?

Commissioner **Broadbent**. We spent a lot of time on this when the bill was introduced by the Senator from Arizona, and we discussed what additional authority we might or might not need. We think that the amendments we have requested are all we would need.

Senator **Murkowski**. There's something else in your testimony that referred to the first of your four amendments, "Further we recommend that the portion allocated to irrigation be reimbursable only to the extent of the irrigation water user's ability to pay."

Can you enlighten me a bit on how that differs from the previous procedure?

Commissioner **Broadbent**. There has been no cost-sharing proposal on dam safety before, so it's a brand new procedure. If a dam has been built primarily for the benefit of irrigators or the allocable cost is for irrigation benefits, the irrigator has to pay under the Reclamation Act. Under current reclamation law, he only pays up to his ability to pay. This would be consistent with that provision.

Senator **Murkowski**. Supposing his ability to pay is limited and somebody else's ability to pay is not limited. Do you take a larger charge for the person that can pay to make up for what you can't get?

Commissioner **Broadbent**. The amount to be repaid would be based on costs allocated to irrigation benefits. If a user can only pay a certain percent of it because of his situation, then the rest would be paid by either the power benefits or be nonreimbursable.

Senator **Murkowski**. Are you satisfied with that kind of arragement?

Commissioner **Broadbent**. It's consistent with the present law.

Senator **Murkowski**. Do you think it's equitable?

Commissioner **Broadbent**. Yes.

Senator **Murkowski**. You don't have any changes suggested?

Commissioner **Broadbent**. No.

Senator **Murkowski**. How many of these dams have power generation?

Commissioner **Broadbent**. I would guess at least half.

Senator **Murkowski**. And they're all owned by the Federal Government?

Commissioner **Broadbent**. All except the seven dams that we referred to.

Senator **Murkowski**. They are operated by, I assume, some power district or irrigation district, and that power is sold into a grid?

Commissioner **Broadbent**. Some of them are operated by the Government and some are operated by the users.

Senator **Murkowski**. Why should the Government continue operating them?

Commissioner **Broadbent**. Examples we might look at where we operate, and we aren't operating very many, are the Grand Coulee and Parker Dams. For instance, Parker Dam on the Colorado River is one where it's hard to find a representative operator, because the dam does so many other things besides provide recreation benefits.

Senator **Murkowski**. And the reason there is, because you can't get a representative group to operate it, is that right?

Commissioner **Broadbent**. It's operated mostly for flood control benefits.

Senator **Murkowski**. I'm talking about those that have power.

Commissioner **Broadbent**. That has a power feature. In some of those cases they are operated by allottees.

Senator **Murkowski**. Does the Government have a policy that encourages phasing out of the Government operation to encourage that a utility district be formed or whatever to take over the operation?

Commissioner **Broadbent**. It does, but it hasn't been enforced in many areas. For instance, all of the Salt River Dams are operated by the Salt River project. Many of our larger facilities on major rivers are still operated by the Government.

Senator **Murkowski**. Do you consider within your scope an authority to provide the encouragement to these local districts to take over the operation of these dams in the Federal Government?

Commissioner **Broadbent**. Yes. Regarding the central Arizona project we supported a bill that just passed the Arizona legislature to provide that they would take over all of the operation and maintenance of the central Arizona project facilities.

Senator **Murkowski**. As far as the policy matter is concerned, you are encouraging whatever it takes for the local entities to take over the operation?

Commissioner **Broadbent**. Yes, sir.

Senator **Murkowski**. Is there any kind of a schedule that you propose with the phasing out of Federal authority in the sense of operation?

Commissioner **Broadbent**. We're attempting to look at that right now. I don't think we have a schedule right now, but that is part of our whole new program.

Senator **Murkowski**. Would it be within your capability to provide for the committee of a policy plan on how you intend to encourage the phaseout schedule of the Federal Government, so that these can be taken over by the local districts?

Commissioner **Broadbent**. We would be happy to furnish that for the committee.

Senator **Murkowski**. Let me ask you one more question. Would it be in the Federal Government's interest eventually to just turn these dams over to the local entities? They operate them anyway. They maintain them.

Commissioner **Broadbent**. That is certainly part of the asset management program of the administration. I don't know that it doesn't make a lot of sense.

Senator **Murkowski**. You don't know that it doesn't make a lot of sense?

Commissioner **Broadbent**. In other words, I think it might. I think it makes a lot of sense.

Senator **Murkowski**. If it's such a good idea, why don't we try it with one and see if anybody wants a dam.

Commissioner **Broadbent**. We have. It's pretty hard to pass away some of them; at least ownership.

Some of them want the operation but they don't want the title of ownership.

Senator **Murkowski**. Do you know why? If it sounds like a good idea to you and me, maybe we'd better hear a witness, to tell us why it's a good idea.

Commissioner **Broadbent**. In some areas, as with an irrigation project, we turn it over to the district after it's paid out or something like that, and give it to them. But then they don't qualify for rehabilitation and betterment programs. There are a number of reasons why it isn't done.

Senator **Murkowski**. They generate the revenue.

Commissioner **Broadbent**. All of the monetary.

Senator **Murkowski**. I'd like to pursue that at an appropriate time. It would seem that there is some justification to at least explore the idea..

Commissioner **Broadbent**. We are preparing some work on that now. It will be a few months before it's done, but we would be happy to sit down with you at your convenience.

Senator **Murkowski**. We could just take one or two of the more suitable projects that might fit in. I'm sure that there is a question of liability that might come up. I guess you can insure against that, because if these were privately owned then it wouldn't be coming into the Federal Government.

I thank you very much, Commissioner.

[Subsequent to the hearing Commissioner Broadbent supplied the following:]

United States Department of the Interior
BUREAU OF RECLAMATION
~~WATER AND POWER RESOURCES SERVICE~~
WASHINGTON, D.C. 20240

IN REPLY
REFER TO: 430

MAY 4 1982

Honorable Frank H. Murkowski
Chairman, Subcommittee
on Water and Power
Committee on Energy and
Natural Resources
United States Senate
Washington, DC 20510

Dear Senator Murkowski:

During the hearing April 22, 1982, on S. 956 and other bills, you asked me to comment about transferring title to our facilities to the water users.

The Bureau's current transfer policy, as stated in Reclamation Instructions, part 232.0.7 (copy attached) is to transfer the responsibility for operation and maintenance (O&M) of facilities to the water users just as soon as the water users develop the capability to operate and maintain the facilities. This policy is actively pursued, as indicated in the attached instruction memorandum of November 9, 1977, to all Regional Directors, subject: "Transfer of Operation and Maintenance Responsibilities...." The policy of transferring O&M responsibilities generally has not been extended to large dams when two or more entities are dependent upon the operation of the same dam for their water and/or power supply.

Section 6 of the Reclamation Act, Act of June 17, 1902 (copy attached), provides for the transfer of O&M responsibilities to the water users. Regarding the transfer of title, section 6 states, "...the title to and the management and operation of the reservoirs and the works necessary for their protection and operation shall remain in the Government until otherwise provided by Congress." The Bureau has interpreted the intent of the Congress to include irrigation and drainage facilities as well as dams and reservoirs, on the basis that holding title will ensure repayment of the Federal investment.

H.R. 2579, 96th Congress, 1st Session, provided for the transfer of the title to the Rio Grande Project facilities (those within the State of New Mexico) to the Elephant Butte Irrigation District (EBID). We recommended that the bill be enacted, provided that it was amended to indicate that the rights-of-way to be transferred are only those lands and facilities that are used solely for the purpose of serving EBID lands. The justification was that some of the lands and facilities were also used to serve the El Paso County Water Improvement District No. 1 and the Republic of Mexico (under the 1906 Treaty). This modification avoided the administrative difficulty of reaching agreement as to which entity title to a facility serving several entities should be transferred. This issue can be more difficult where multiple purposes are served.

If we can be of further assistance please contact us.

Sincerely yours,

R. N. Broadbent

Robert N. Broadbent
Commissioner

Attachments

assessed. The benefits are project-wide, and the costs should be allocated to all lands in the project. This may be accomplished by allocating common facility operation and maintenance costs to operating accounts and capital accounts in the same ratio as to service area is to the total project irrigable area.

.4 Equipment Procurement. Facilities and equipment, both fixed and movable essential for the operation and maintenance of project works, are as much a part of the project, considered as an operating unit, as are the dams and canals. Cost estimates of the initial requirements of operating facilities and equipment are included with construction cost estimates on Basic Estimates, Form DC-1, and in the estimated total cost of the project, Form PF-1. They shall be justified and scheduled in the appropriation requests. In some cases, the equipment will be purchased early in the construction period and used in construction. However, where this is not done, project operation and maintenance shall be anticipated and purchases made of the minimum initial requirements for movable equipment, such as draglines, bulldozers, trucks, etc., prior to transfer of the works to operation and maintenance status. Costs of such purchases should be covered in the principal obligation.

.5 Headquarters Facilities and Housing. Headquarters facilities and housing required for project operation and maintenance shall be provided to the extent that they are not available or will not be provided by a community or private enterprise. Project, division, or other unit headquarters shall be located in or near established communities whenever operating conditions permit. Rental opportunities shall be considered and local people encouraged to provide housing and as many of the other facilities as practicable. Conditions will usually require that some housing and possibly other facilities be located in widely dispersed areas away from established communities. Private enterprise is not likely to provide such facilities, and those which private interests will not provide must be provided as a part of the project. Consideration should be given to these needs in planning a project and the estimated costs included in the construction cost estimates on Basic Estimates, Form DC-1. Regional irrigation personnel shall work closely with the project investigations personnel to insure adequate consideration of project requirements for headquarters facilities and housing. Generally, with proper planning and forethought, many of the required facilities can be adapted and located to serve both construction and operating purposes.

.6 Transition from Construction to Operation and Maintenance Status. Arrangements for transfers from construction to operation and maintenance shall be initiated by the Regional Director, ordinarily on the recommendation of the operating office head.

Effective with the transfer from construction to operation and maintenance status, responsibility for operation and maintenance passes from the head of the construction activity to the head of the operation and maintenance activity. This shall not preclude later charges to the principal obligation for completions and corrections found necessary.

.7 Transfer from Bureau to Water User Operation. Reclamation law and established Bureau policy provide for the transfer of the responsibility for operation and maintenance of irrigation works to irrigation, conservancy, or similar districts or other legally authorized water users organizations. The transfer should be made as soon as the works are reasonably complete and stabilized, and the water users organization has a competent staff and is financially able to operate and maintain the works. Arrangements for transfers of works from the Bureau to water users organizations shall be initiated by the Regional Director. He shall notify the Commissioner with a copy to the Chief Engineer, of his intention to make the transfer. His letter of notification of intention should include a general description of the works to be transferred, mention any important or unusual problems that may be involved, such as contract considerations, and establish a schedule of the steps to be taken in effecting the transfer, including the following major ones:

A. Making of joint inspection.

B. Submission of examination report to the Chief Engineer with request for his concurrence.

C. Clearing of transfer by the Chief Engineer.

D. Notifying Commissioner and Chief Engineer of scheduled date of transfer.

.8 Transfer Inspections and Reports. The inspections in connection with transfers of works either from construction to operation and maintenance or from the Bureau to water user operation, shall cover the general condition of the structures and facilities; their sufficiency; and the availability of necessary operation and maintenance facilities, equipment, and instructions, including Designers' Operating Criteria and Standing Operating Procedures, with supporting documents, where applicable. Preparatory to the transfer of project works to operation and maintenance status, the structures and facilities to be transferred shall be inspected and reported jointly, if feasible, by operation and construction personnel. The Chief Engineer will normally be represented on transfer inspections of major structures and of some nondelegated minor facilities where special problems exist. Preparatory to the transfer of project works to water users' organizations, the structures and facilities shall be inspected jointly by representatives of the Bureau and the water users. Where works are to be transferred to water users' organizations immediately upon completion of construction a joint inspection shall be made by operation, construction, and water users' organization personnel. Results of the inspections shall be reported to the Regional Director, through the appropriate office head, with copies to the Chief Engineer. The reports shall list any deficiencies, including lack of compliance with Subsection P, Section 4, of the Act of December 5, 1924 (43 Stat. 704) or lack of right-of-way plats; indicate who should be responsible for correcting each deficiency and the funds to be used in accordance with existing budgetary policies; and recommend action to be taken on transfer of the facility. The Regional Director, after receiving the concurrence of the Chief Engineer, shall make the transfer, notifying the Commissioner and the Chief Engineer of the effective date of transfer, known deficiencies at time of transfer, and steps to be taken to correct deficiencies.

.9 Transfer of Facilities and Equipment. As the project moves from construction through Bureau operation to water user operation, the necessary facilities and equipment shall be transferred with the operation and maintenance of the fixed plant. Title to the fixed plant remains with the Government. Title to movable equipment and supplies may be transferred if appropriate arrangements for repayment are made. Under certain conditions, some facilities--for instance, those required for protection of Government works or those serving multiple purposes or several irrigation entities--are held as "reserved works," and it may be appropriate to hold some of the movable equipment for the same reasons. This reserved equipment when not required on reserved works may be used by water users' organizations for operation and maintenance of the facilities in their care under rental agreements or appropriate regulations to insure proper cost distribution among the different purposes or entities.

.10 Equipment Replacement. Replacement cost of operation and maintenance equipment during the period of Bureau operation, if any, shall be charged against construction or operation and maintenance funds, as appropriate. If used jointly, the cost shall be assigned in proportion to use. After transfer of the equipment to the water users, replacement shall be the responsibility of the water users.

United States Department of the Interior
BUREAU OF RECLAMATION
WASHINGTON, D.C. 20240

NOV 9 - 1977

IN REPLY REFER TO: 430
500.

Memorandum

To: Regional Director, PN, MP, LC, UC, SW, UM, LM

From: ACTING Commissioner Sgd D. D. ANDERSON

Subject: Transfer of Operation and Maintenance Responsibilities for Irrigation Project Facilities from Bureau of Reclamation to Water Users Entities

As indicated by Reclamation Instructions, part 232.0.7, Reclamation law and established Bureau of Reclamation policy provide for the transfer of the responsibility for operation and maintenance of irrigation works to irrigation, conservancy, or similar districts or other legally authorized water users organizations.

Please prepare an inventory of fully completed and partially completed irrigation facilities or projects for which Reclamation has the responsibility for operation and maintenance and have the inventory available for our discussion in Denver on November 29 and 30. For each facility or project, indicate the water users entity to which the responsibility for operation and maintenance could be transferred, how soon the transfer process could be initiated, the number of Reclamation employees who would be made available for assignment to other duties, and the probable effect on your region's employment ceiling.

I am looking for opportunities to increase our ability to accomplish the future program and want to eliminate all work that can be accomplished effectively by others.

cc: Chief, Division of Water O&M, E&R Center cause they fail to pay such charges. *Magruder et al. v. Belle Fourche Valley Water Users' Association*, 219 Fed. 72, 133 C.C.A. 324 (1914).

An injunction will not lie against the project manager of the Flathead Indian Reclamation project to restrain the shutting off of water to enforce the payment of charges due under orders of the Secretary of the Interior (a) unless the Secretary of the Interior were joined as a party defendant where the United States conceded the existence of the water supply claimed by the plaintiff below or (b) unless the Secretary of the Interior and the United States were joined as parties defendant, where the United States disputed the plaintiff's claim of a water supply, and where the allowance of the plaintiff's claim would affect the Government water supply available for the Flathead project. *Moody v. Johnson*, 66 F. 2d 999 (9th Cir. 1933).

Sec. 6. [Reclamation fund to be used for operation and maintenance—Management of works to pass to landowners—Title.]—The Secretary of the Interior is hereby authorized and directed to use the reclamation fund for the operation and maintenance of all reservoirs and irrigation works constructed under the provisions of this act: *Provided*, That when the payments required by this act are made for the major portion of the lands irrigated from the waters of any of the works herein provided for, then the management and operation of such irrigation works shall pass to the owners of the lands irrigated thereby, to be maintained at their expense under such form of organization and under such rules and regulations as may be acceptable to the Secretary of the Interior: *Provided*, That the title to and the management and operation of the reservoirs and the works necessary for their protection and operation shall remain in the Government until otherwise provided by Congress. (32 Stat. 389; 43 U.S.C. §§ 491, 498)

EXPLANATORY NOTES

Codification. The first clause, down to the proviso, relating to operation and maintenance, is codified as section 491, title 43, U.S. Code. The balance of the section is codified as section 498.

Supplementary Provisions. A number of general and specific provisions relating to charges for, and transfer of, operation and maintenance, have been enacted and are referenced in the index. Statutes of general application include the Reclamation Extension Act of 1914 and the Fact Finders' Act of 1924, which appear herein in chronological order.

NOTES OF OPINIONS

Operation and maintenance 1–10
  Charges for 2
  Generally 1
  Negligence actions 4
  Transfer of 3
Title to property 11–20
  Generally 11

1. Operation and maintenance—Generally

The Attorney General for New Mexico ruled July 5, 1917, that persons fishing in the Elephant Butte dam, Rio Grande project, must have a State license. On August 3, 1917, the Bureau held that persons fishing in said reservoir must comply with State law but must also have the consent of the United States.

The Secretary of the Interior is an indispensable party to a suit by water users to enjoin the project manager of the Yakima project from refusing to deliver quantities of water to which they claimed they were entitled under contracts with the United States, when such refusal was done at the direction of the Secretary. *Moore v. Anderson*, 68 F. 2d 191 (9th Cir. 1933).

2. —Charges for

The United States may assess operation and maintenance charges against water users as well as construction charges. To hold otherwise would greatly deplete, if not entirely consume, the Reclamation Fund, thus diverting the proceeds of the public domain to the payment of local expenses. This interpretation of the Reclamation Act has been recognized by Congress. *Swigart v. Baker*, 229 U.S. 187 (1913).

The Secretary of the Interior, being authorized to tax and determine the charges, is authorized to divide the same into two parts—one for construction and the other

Senator **Murkowski**. Commissioner, I believe you can go ahead and testify on S. 1621 at this time. We are obviously trying to make some accommodations here.

Commissioner **Broadbent**. I'm happy to testify on this. I have a personal interest in this.

Mr. Chairman, I am pleased to be here to present the Department's view on S. 1621. The bill, if enacted, would provide for the replacement of pump casings for 12 of the 14 horizontal centrifugal pumping units in pumping plants 1A and 2A of the southern Nevada water project, stage 1.

We recommend enactment of S. 1621.

That's really the essence of our testimony. There is a lot of explanation and we would like to submit the full statement for the record.

[The prepared statement of Commissioner Broadbent on S. 1621 follows:]

Statement of Robert N. Broadbent
Commissioner of the Bureau of Reclamation
Witness for the Department of the Interior before the Subcommittee on Water and Power, Senate Committee on Energy and Natural Resources
April 22, 1982

Mr. Chairman, members of the Subcommittee. I am pleased to be here to present the Department's views on S. 1621. The bill, if enacted, would provide for the replacement of pump casings for 12 of the 14 horizontal centrifugal pumping units in Pumping Plants 1A and 2A, Southern Nevada Water Project, Stage 1, Nevada. (Two casings were replaced previously on an experimental basis, which proved successful.) The project was developed by the Bureau of Reclamation. These 14 units pump water from the Alfred Merritt Smith Water Treatment Plant near the shore of Lake Mead through project water conveyance pipelines to terminal storage facilities which feed water distribution systems serving Las Vegas, North Las Vegas, Henderson, Nellis Air Force Base, and other communities in the Las Vegas area.

We recommend enactment of S. 1621.

The operation of the original pumps and motors at Pumping Plants 1A and 2A has been unsatisfactory. Maintenance costs have been extraordinarily excessive, and it is clearly evident that the lifespan of the units will be significantly shorter than normal unless the units are modified.

Hitachi American, Ltd., under the Bureau of Reclamation Solicitation No. DS-6637, furnished the pumps, motors, and appurtenant equipment; the company also supervised the installation. The pumps and motors were placed in operation in 1971. In January 1973, a unit was dismantled because of the development of unusual noise. Excessive cavitation damage was found, as evidenced by holes completely through some of the pump impeller vanes. Cavitation also was found on the casing at the eye of the impeller (intake side). At that time, the unit had operated approximately 2,100 hours. Although the one-year warranty period had expired and Hitachi did not admit legal responsibility under the contract, Hitachi agreed to reshape the leading edge of the vanes in all 14 impellers, and the company contributed $18,500 as its part of the cost. The project water users assumed responsibility for the remaining costs, including the costs of dismantling and reassembling the units. After testing, it was apparent that the cavitation problem had not been solved.

Since the expiration of the warranty period, Hitachi has expended considerable effort to modify the pumps so that they would operate satisfactorily. Costs expended on the effort to obtain acceptable results from the pumps approximate $1 million by Hitachi, $300,000 by the water users, and $150,000 by Reclamation. Reclamation's costs must be repaid with interest by the water users. The combined expense of remedial measures to date far exceeds Hitachi's original bid of $693,400 for furnishing the pumps, motors, appurtenant equipment, and its supervision of the installation.

Model tests and impeller redesign since the problem was discovered in 1973 indicate that many factors were involved, such as the synchronous speed of the units (1,200 revolutions per minute), the magnitude of the suction and discharge head, the corrosive effect of the water, and the type of materials used in the casings and impellers.

Major changes that were made subsequent to installation of the original equipment include: (1) redesigned impellers; (2) modification of the casing baffle plates; and (3) changing the start/stop time sequencing for the pump valving. All of these measures helped diminish the magnitude of the problem, but did not totally resolve it.

In July 1979, we decided to install two stainless steel casings, fabricated by Hitachi, in a research program as a final effort to resolve the problem. Had that effort failed to resolve the problem, there appeared to be no alternative left but to replace all of the pumps and motors with units having a synchronous speed of 900 revolutions per minute. However, the results of the research program completed in 1980 are conclusive. They show that replacement of the existing cast steel casings with stainless steel casings is a final acceptable technical solution to the cavitation/corrosion/erosion problems. The motors, shafts, and impellers will not have to be replaced if the casings are replaced.

The proposed legislation would authorize the Secretary of the Interior to procure the pump casings and appurtenant equipment. The Secretary would be authorized to deal with Hitachi for the purchase, in order to assure conformity of the materials and to obtain the favorable price offered by Hitachi (at cost). The State of Nevada has agreed to install the casings and appurtenant parts at its cost, subject to approval by the Secretary.

The estimated cost of procuring the stainless steel casings is $1.5 million (July 1980 price levels). Because of the very poor performance of the existing units almost from the inception of the project, the exeptionally high cost to date of maintenance, the additional costs incurred by the water users, and the participation of the State in the casing replacement, we believe that it would be appropriate to make the cost of procuring the pump casings and appurtenant parts nonreimbursable, as indicated in S. 1621.

I would be pleased to answer any questions that you may have.

Thank you.

Senator **MURKOWSKI**. Mr. Commissioner, what is the anticipated remaining life of the pumps in need of repair?

Commissioner **BROADBENT**. We really don't know because we have tried to repair them so many times because they've deteriorated so badly, probably because of some design failure or some construction failure. They say it would be approximately 10 years.

Senator **MURKOWSKI**. Ten years is the remaining life of the pumps that need repair? So they'll run another 10 years without repair?

Commissioner **BROADBENT**. It would cost maybe $2 million to attempt to repair them during that 10-year period. They require constant repair.

Senator **MURKOWSKI**. Who manufactured the pump?

Commissioner **BROADBENT**. Hitachi. They have spent about $1 million of their own money trying to repair them. The water district out there has spent probably $300,000 or $400,000 trying to repair them. And the Federal Government has spent about $150,000.

Senator **MURKOWSKI**. How come we happened to get Hitachi pumps?

Commissioner **BROADBENT**. They were a little better. They were put in about 1971.

Senator **MURKOWSKI**. These are what kind of pumps?

Commissioner **BROADBENT**. They are a horizontal centrifugal water pump that lifts the water out of Lake Meade up into a holding reservoir and then from the holding reservoir to the mountains around Las Vegas.

Senator **MURKOWSKI**. Is it traditional that the Bureau of Reclamation go out and take the lowest bid?

Commissioner **BROADBENT**. I think it's required by law. As I understand it there's a "Buy America" Act that gives you 6-percent preference to American manufacturers.

Senator **MURKOWSKI**. Were there any guarantees on these pumps?

Commissioner **BROADBENT**. Yes and the guarantees have expired.

Senator **MURKOWSKI**. I see, just after the 10,000 miles.

I assume if the pumps fail the service will stop?

Commissioner **BROADBENT**. Yes, sir.

Senator **MURKOWSKI**. And there is no other source of water available?

Commissioner **BROADBENT**. There is ground water for the Las Vegas valley, but it's being badly overdrafted right now. And their wells have been taken out of service. I doubt if they would have the capacity to deliver to Las Vegas. In fact, I know they wouldn't have the capacity now.

Senator **MURKOWSKI**. We are going to replace pump casings for 12 of the 14 horizontal centrifugal pumps?

Commissioner **BROADBENT**. Two of them have already been replaced with stainless steel and it has worked well.

Senator **MURKOWSKI**. So you have more than just the casing deterioration. You have, evidently, an improperly designed pump for the job that it's doing.

Commissioner **BROADBENT**. It's the cavitation of the casing mostly.

Senator **Murkowski**. It will cure itself when you put in these casings?

Commissioner **Broadbent**. That is my understanding. The operators are the Las Vegas Valley Water District and the Colorado River Commission, and they're here to testify.

Senator **Murkowski**. And this is going to cost——

Commissioner **Broadbent**. About $1½ million—July 1980 price levels.

Senator **Murkowski**. And the two that you've done so far, cost how much?

Commissioner **Broadbent**. $300,000.

Senator **Murkowski**. The price goes down the more you get, is that right?

Commissioner **Broadbent**. Well, it's a $1.5 million capital cost, and then the water district itself is tearing them all down and installing the new casings. It's going to assume all of the cost except the actual capital acquisition.

Senator **Murkowski**. Who supplies the stainless steel?

Commissioner **Broadbent**. Hitachi.

Senator **Murkowski**. Are they guaranteed?

Commissioner **Broadbent**. I couldn't answer that. I think maybe the recipients——

Senator **Murkowski**. You have to approve their purchase?

Commissioner **Broadbent**. Yes, sir.

Senator **Murkowski**. I assume you're going to find out if they are going to be guaranteed?

Commissioner **Broadbent**. I think we felt the best way to try and guarantee them was put two in and see if they would operate, and they have operated. They are successful. At this time there are no problems.

Senator **Murkowski**. There were no problems, I gather in 1970, and then right after the guarantee ran out then you began to have problems.

Commissioner **Broadbent**. That's correct.

I think these have been in long enough to show.

Senator **Murkowski**. Let's move to S. 2177, if I may. This is a proposal to amend title III, Colorado River Basin Act.

Commissioner **Broadbent**. Mr. Chairman, I would like to again submit the statement for the record. This is a real short statement.

I am appearing today to represent the views of the Department of Interior on S. 2177 which would provide for cost indexing of the construction costs of the non-Indian distribution system of the central Arizona project. We support passage of the bill.

[The prepared statement of Commissioner Broadbent on S. 2177 follows:]

Statement of Robert N. Broadbent, Commissioner, Bureau of Reclamation, representing the Department of the Interior before the Senate Subcommittee on Water and Power, Committee on Energy and Natural Resources, on S. 2177 to amend Title III of the Colorado River Basin Project Act, Public Law 90-537 (82 Stat. 885) as amended, to provide for cost indexing of the construction cost of the non-Indian distribution system of the Central Arizona Project

Mr. Chairman and members of the subcommittee. I am appearing today to present the views of the Department of the Interior on S. 2177 which would provide for cost indexing of the construction cost of the non-Indian distribution system of the Central Arizona Project.

The bill is a proposed amendment to Public Law 90-537 (82 Stat. 885), as amended by Public Law 95-578 (92 Stat. 2471) and Public Law 96-375 (94 Stat. 1505). The 1968 public law provides for a project appropriation ceiling with indexing for all features of the project except the non-Indian distribution system, which in Sec. 309.(b) was funded for only $100,000,000 with no such indexing provision.

We support the passage of the bill. However, even with the indexing provided in the bill, the total estimated cost of the non-Indian distribution system would exceed the indexed appropriation ceiling. With the indexing, the funding under the new ceiling would be about $320,000,000 while the current estimated costs for the non-Indian distribution system are about $550,000,000.

Mr. Chairman, this completes my statement. I would be pleased to answer any question you may have.

Senator MURKOWSKI. Thank you.

From your statement, even with the indexing, the new ceiling would fall, what, $230 million short of doing the required job? If we go ahead with the bill in its present form and simply index it, this would mean you would have to come back to Congress for additional legislation, is that correct?

Commissioner BROADBENT. It very well might. We are at the present time reevaluating our specifications for distribution systems for central Arizona project, and attempting to sit down and work with all of the agencies to see if there aren't more cost-effective ways to distribute the bulk of the water. We may be able, by amending our specifications, to distribute most of the water at a lower cost and we are looking at this seriously, because the system may only be used as long as there is water available for irrigation in Arizona. Considering use projections for industrial and municipal water requirements, M. & I. users in the future will utilize water available to agricult users during the early years of the project.

If they do that, we may not need to design a system that's going to last 100 years. So we may be able to reduce costs by revising our design specifications.

Senator MURKOWSKI. I guess my next question would be basically, do you feel indexing is sufficient?

Commissioner BROADBENT. Under present circumstances and our present rules, no.

Senator MURKOWSKI. So we're looking at $230 million?

Commissioner BROADBENT. That's right.

Senator MURKOWSKI. When would you anticipate coming back for that?

Commissioner BROADBENT. Probably in 3 to 4 years if we go ahead with the present program.

Senator MURKOWSKI. Do you have any suggestion on how this bill might be amended so that the Bureau would not have to come back to Congress for additional legislation?

Commissioner BROADBENT. Remove the ceiling. Or increase it with a provision for indexing, or set a flat ceiling that would cover the cost over the construction period.

Senator MURKOWSKI. All right. I very much appreciate your testimony.

I think that concludes those items and I want to thank you again, Commissioner Broadbent. You have enlightened us. We'll be interested in receiving for the record your recommendations on how the Government should phase out of the dam business.

Commissioner BROADBENT. We're prepared to get it to you.

Senator MURKOWSKI. But you feel the Federal Government should bestow some gifts. You heard about the free gift horse. We won't have to do any of that. Thank you.

We are waiting for Senator Hatfield to appear. We understand he is on his way and he would like to participate in the introduction of the next witness. So with that, we will ask the cameras to turn off the lights and save the Government some money.

We'll just declare a short recess.

[Whereupon, a short recess was taken.]

Senator **Murkowski**. We'll reconvene the Subcommittee on Water and Power.

I want to introduce Senator Hatfield who is joining us at this time. It is with distinct pleasure to welcome you, Senator, to the committee. We are calling our next witness, Ms. Kristina Nygaard.

I'm going to call on you Senator. You may proceed. And again, I welcome you for the committee.

STATEMENT OF HON. MARK O. HATFIELD, A U.S. SENATOR FROM THE STATE OF OREGON, ACCOMPANIED BY JACK KENNEDY AND CARL HALVORSEN, REPRESENTATIVES OF THE LAKE OSWEGO CORP., PORTLAND, OREG.

Senator **Hatfield**. Mr. Chairman, I first of all want to thank you for permitting me to testify here in this hearing on behalf of S. 1573 and to introduce to you two of my good friends and constituents, Mr. Carl Halvorsen to my right, and Mr. Jack Kennedy, who represent the Lake Oswego Corp.

Mr. Chairman, let me put my formal statement into the record if I may and just briefly highlight what the situation is.

We have a suburban area in Portland which is known as Lake Oswego. It's a beautiful area in which the Lake Oswego Corp. was formed to represent the owners of this property, this lake area, some 9,000 family members. And on this lake they operate a 500-kilowatt generator at the east end. This generator really operates on a part-time basis only, due to limitation of seasonal runoff.

Some years ago, in 1976 or earlier rather, 1972, the Corps of Engineers attempted to establish certain jurisdiction over the lake and the water-related construction use of the lake. As a result of that, section 162 of the Water Resources Development Act of 1976, which I proposed, was introduced and passed into the Congress, into law, to declare Lake Oswego a nonnavigable waterway and thereby eliminating the Corps of Engineers' claim or assertion of jurisdiction.

Now we come along and find ourselves faced with the Federal Energy Regulatory Commission which has raised questions on the earlier mentioned legislation and has attempted to pose jurisdiction on Lake Oswego's electrical generating facility.

Mr. Chairman, this is not Federal moneys that built this. This was all private, and I have therefore introduced this bill to clear up the matter again. I really hope this is the last time we have to go through a process and establish and declare ownership and jurisdiction over Lake Oswego and its facilities. And so that is the purpose of this legislation, is to give relief and to clarify the question of jurisdiction.

As I say, I have two of my neighbors from the Portland area. I guess they would like to be identified only as Lake Oswegoans, but it is in the Portland area. And these men are on the corporation, the Lake Oswego Corp., and if you have any technical or detailed questions, they would be very happy to answer them.

I would like to offer them the opportunity to say a few words, Mr. Chairman, at this time, if that's all right, for the record.

Mr. Halvorsen on my right, first.

Senator MURKOWSKI. We welcome you to the committee, Mr. Halvorsen, and look forward to your comments.

[The prepared statement of Senator Hatfield follows:]

STATEMENT OF SENATOR HATFIELD ON S. 1573

MR. CHAIRMAN, I WANT TO THANK YOU FOR HOLDING A HEARING ON THIS LEGISLATION.

S. 1573 AMENDS THE WATER RESOURCES DEVELOPMENT ACT OF 1976. THE 1976 ACT DECLARED LAKE OSWEGO, IN NORTHWESTERN OREGON, TO BE A NON-NAVIGABLE WATERWAY FOR PURPOSES OF THE RIVERS AND HARBORS ACT OF 1899.

LAKE OSWEGO IS OWNED BY THE LAKE OSWEGO CORPORATION, A HOMEOWNER ASSOCIATION OF SOME 9000 FAMILY MEMBERS WHO SHARE IN OWNERSHIP OF THE CORPORATION THROUGH DEEDED RIGHTS APPURTENANT TO RESIDENTIAL PROPERTY IN THE LAKE OSWEGO AREA.

THE LAKE OSWEGO CORPORATION OWNS AND OPERATES A 500 KILOWATT GENERATOR AT THE EAST END OF THE LAKE. THIS GENERATOR OPERATES ON A PART TIME BASIS DUE TO LIMITATIONS IN SEASONAL RUN-OFF.

THE ARMY CORPS OF ENGINEERS ATTEMPTED TO ASSERT JURISDICTION OVER THE LAKE IN 1972 TO CONTROL WATER RELATED CONSTRUCTION AND USE OF THE LAKE. AS A RESULT, SECTION 162 OF THE WATER RESOURCES DEVELOPMENT ACT OF 1976 WAS PASSED TO DECLARE LAKE OSWEGO A NON NAVIGABLE WATERWAY AND THEREBY ELIMINATED THE CORPS OF ENGINEERS ASSUMED JURISDICTION.

NOW THE FEDERAL ENERGY REGULATORY COMMISSION HAS QUESTIONED THIS EARLIER MENTIONED LEGISLATION AND HAS ATTEMPTED TO IMPOSE JURISDICTION OF LAKE OSWEGO'S ELECTRICAL GENERATING FACILITY.

I HAVE INTRODUCED S. 1573 TO CLEAR UP THIS MATTER AND REMOVE FERC'S ASSUMED JURISDICTION OVER THIS GENERATING FACILITY. ENACTMENT OF THIS LEGISLATION RELIEVES THE LAKE OSWEGO CORPORATION FROM NEEDLESS REGULATORY REQUIREMENTS AND EXPENDITURES.

STATEMENT OF CARL HALVORSEN, REPRESENTATIVE OF THE LAKE OSWEGO CORP., PORTLAND, OREG.

Mr. **Halvorsen**. Mr. Chairman, we have some prepared testimony, and Jack, why don't you give them the 15 copies that they asked for.

Senator **Murkowski**. I want to assure you that the testimony as in the case of Senator Hatfield, will be in the record as prepared.

Mr. Kennedy, do you have a statement for the record?

Mr. **Halvorsen**. In addition to that we have another set of historical documents that we would like to provide for the committee.

Senator **Murkowski**. The committee would welcome those documents.[1]

Mr. **Halvorsen**. Basically our situation here is we have a history of owning a small powerplant for some 70 years. We have a corporation that runs the lake to the ultimate from an environmental standpoint. We generate enough electricity according to Congressman AuCoin to toast 1,300 slices of bread at the same time. I think you could do that if you had all of them in one room. If you had 10 or 20 or 30 feet between each of the slices of bread, I'm sure that when you got to the 1,300th you could probably pick the wires up and they wouldn't even be warm.

I mean this gives you an indication of the minutia of this particular situation from a regulatory standpoint. And it seems to me and to us in the corporation that it would serve everybody well to once and for all eliminate this problem of navigability, ownership, licensing, regulation, and I have read the testimony of the Federal Energy Regulatory Commission and I would suggest that an amendment to this bill be prepared to satisfy their thoughts on the latter part of their testimony where they point out that there may be some confusion in the law that once and for all to get rid of the situation that probably there should be a little more in the bill.

So with that, we are prepared to answer any questions that you may have. Mr. Kennedy is the attorney for the commission. I am a stockholder in the corporation and have been a member of the board of directors for some 20-odd years. Between us I think we have any information that you might require.

STATEMENT OF JACK KENNEDY, REPRESENTATIVE OF THE LAKE OSWEGO CORP., PORTLAND, OREG.

Mr. **Kennedy**. Mr. Chairman, I appreciate the opportunity of being here. I believe that the facts and the background information has been adequately supplied. My statement has been submitted to the committee.

I would just emphasize one thing. This is a landlogged inland lake. And the management and ownership is basically by the homeowners in the area. It affects the entire city of Lake Oswego as far as property values are concerned and as far as the maintenance of the lake.

I think there is absolutely no evidence to indicate that the lake is not maintained far above any Federal standards of water quality and patrolling of the lake, safety and other factors.

---

[1] See appendix I.

The financing is solely by voluntary assessments of the homeowners and we have a situation that we believe is significant overregulation and we urge the adoption of this legislation.

[The prepared statement of the Lake Oswego Corp. follows:]

STATEMENT OF THE LAKE OSWEGO CORPORATION
REGARDING S1573

Senate Bill S1573 concerns a small, private lake known as Lake Oswego and which is located in the City of Lake Oswego in the State of Oregon. The lake is owned by the Lake Oswego Corporation, a homeowners association of some 9,000 family members who share in the ownership of the corporation through deeded rights appurtenant to residential property in the Lake Oswego area.

This Bill has been introduced by Senator Mark O. Hatfield of Oregon and has been referred to the Water and Power Subcommittee for consideration. The text of the proposed legislation is brief and provides as follows:

> That Section 162 of the Water Resource Development Act of 1976 is amended by inserting the following at the end thereof: "Lake Oswego shall also be treated as non-navigable for the purposes of Part I of the Act of June 10, 1920 (41 Stat. 1063 and following; 16 U.S.C. ch. 12, subchapter I).".

As the text of the bill indicates, S1573 will amend the Water Resource Development Act of 1976. The 1976 Act declared Lake Oswego to be a non-navigable water for purposes of the Rivers and Harbors Act of 1899, the enabling act which provides the basis for navigability jurisdiction by various government agencies. The Federal Energy Regulatory Commission (FERC) has questioned the scope of the 1976 legislation and has refused to accept limitations regarding government regulation of Lake Oswego. As a result, the Commission has attempted to assert jurisdiction over Lake Oswego on the basis of historical navigability. The purpose of this bill is to lay to rest questions concerning federal regulation of Lake Oswego based upon disputed alleged historical navigability of the lake.

The question of the navigability of Lake Oswego was first raised by the U.S. Army Corps of Engineers in 1972. Under a program intended to expand the Corps "navigable water" jurisdiction, the Corps of Engineers made an initial determination in 1972 that the lake was historically navigable. Upon further investigation, however, the Corps determined that the historical evidence did not support their original conclusions nor did the character and nature of Lake Oswego warrant any intervention or regulation by the Corps of Engineers.

As a result of a field survey, the District Engineer and Division Engineer of the Corps of Engineers acted to rescind the initial determination of historical navigability. The General Counsel's office of the Chief of Engineers in Washington, D.C. found no precedent for declassification and, as a result, the agency was unable to rectify the matter internally. It was in response to the U.S. Army Corps of Engineers' actions that Section 162 of the Water Resource Development Act of 1976 was enacted. The act was intended to clarify the status of Lake Oswego as a private, non-navigable waterway. The text of the 1976 Act is as follows:

> "For the purposes of section 10 of the Act of March 3, 1899 (30 Stat. 1151) (33 U.S.C. 401) the following bodies of water are declared non-navigable: Lake Oswego, Oregon; Lake Coeurd'A Lane, Idaho; and Lake George, New York. (Oct. 22, 1976, P.L. 94-587, §162, 90 Stat. 2934.) 33 U.S.C. §59m.

Until 1979, it was believed that the 1976 legislation resolved all questions concerning the historical navigability of Lake Oswego. On May 3, 1979, however, the Federal Power Commission, now the Federal Energy Regulatory Commission (FERC), issued an order in which it purported to determine that Lake Oswego was navigable and therefore subject to the jurisdiction of the Commission. In its order, the Commission required Lake Oswego to file an application for a federal power license for the small dam and single hydroelectric generator operated by the Lake Oswego Corporation in connection with the lake. This proposed legislation is in response to the Commission's action.

As in the case of the Army Corps of Engineers, the Lake Oswego Corporation is again faced with an agency's unwarranted attempt to expand its jurisdiction. The FERC first approached Lake Oswego Corporation by letter in 1976 inquiring as to the amount of power generated by the small power facility in order to determine whether power generated entered interstate commerce. The Lake Oswego Corporation established and the Commission did not contest the fact that the insignificant amount of power generated was used locally and that interstate commerce was not involved. For some unexplained reason and despite the minimal power generated, the Commission then challenged the historic navigability of Lake Oswego in an attempt to require the Lake Oswego Corporation to obtain a federal power license.

The Lake Oswego Corporation informed the Commission of the 1976 Legislation concerning Lake Oswego's navigability. The FERC, however, has taken the position that the Water Resource Development Act of 1976 does not preclude the Commission from undertaking a separate determination of historical navigability. The Lake Oswego Corporation does not agree and there are pending proceedings before the FERC and before the United States Court of Appeals for the Ninth Circuit in which the Lake Oswego Corporation has challenged the agency's jurisdiction. These proceedings are exceedingly time consuming and expensive and are completely unnecessary in view of the clear mandate of the 1976 legislation concerning Lake Oswego. The proposed legislation will clarify the status of Lake Oswego and eliminate these proceedings.

BACKGROUND OF LAKE OSWEGO, OREGON

In the written materials submitted to the subcommittee, the Lake Oswego Corporation describes in detail the physical characteristics of Lake Oswego as well as the historical background of the lake. Included with the materials are maps and photographs of the area to familiarize the committee members with the size and character of the lake. It is important for the committee to be familiar with the character of Lake Oswego in order to fully appreciate the need for the proposed legislation.

Lake Oswego is a small inland fresh-water lake situated in Northwest Oregon. The lake is within the city limits of the City of Lake Oswego, which is a small community located a few miles south of Portland, Oregon. The lake was originally known as Sucker Lake and was formed by percolating ground waters and seasonal run-offs from the surrounding hills. The lake had no inlets and the only outlet from the lake was a narrow stream known as Sucker Creek which ran from the East end of the lake over a cliff to the Willamette River.

The record of private ownership of the area dates back to 1850 when A. A. Durham, a native of Oswego, New York, settled in the area and obtained ownership of a vast amount of property in the area, including the entire lake and surrounding property.

The lake was first dammed in the 1850's to stabilize lake water levels and to provide a source of water power for a small sawmill located on Sucker Creek. The lake had no inlet at the time and lake levels varied substantially during the year. In the 1870's a narrow inlet canal was dug from the West end of the lake to the Tualatin River, a distance of approximately one and one-half miles. The Tualatin River then became a source of fresh water for the lake.

By the early 1900's, the Oregon Iron and Steel Company obtained ownership of Lake Oswego and the surrounding property, and later rebuilt the small dam at the east end of the lake. A single 500 kilowatt generator was installed to generate power from the seasonal run-off from the lake. The installation of the power generator was required under state law in order to preserve and maintain water rights in the Tualatin River. The generator was hardly self-supporting as the amount of water available from the Tualatin River varied substantially and has never been sufficient to run even the single generator on a full-time basis. Neither the Tualatin River nor Lake Oswego offers a substantial source of hydroelectric power.

In 1942, the Oregon Iron and Steel Company transferred the bed of the lake and surrounding rim property of Lake Oswego to the Lake Oswego Corporation. The corporation was incorporated at that time in order to take title to the bed of the lake and rim property. The lake, canal, and related power facilities have for the most part remained unchanged over the past sixty years. During that time, however, the City of Lake Oswego has grown and the area surrounding the lake is now extensively developed, including the City of Lake Oswego itself and residential development centering around the lake. The Commission's actions have potentially far-reaching effects for the entire area and threaten the value of hundreds of millions of dollars in Lake area property.

Lake Oswego is a vital asset to the City of Lake Oswego. To assure its continued life, the Lake Oswego Corportion has developed an extensive and comprehensive program of lake management at the primary expense of homeowners. The corporation has been instrumental in preserving the lake amidst rapid urbanization in the surrounding area and has not only preserved but substantially improved water quality. The corporation has developed programs for monitoring and maintaining the quality of the lake environment and has monitored and cooperated with local governments in the many areas affecting the lake, including fish and wildlife conservation, sewage and storm drainage, water pollution and flood control, water safety regulation, and many other areas that affect the quality and use of Lake Oswego.

The system of lake management for the benefit of the area residents has been painstakingly developed over the years. The quality of the lake and surrounding area is evidence of the success of Lake Oswego's efforts.

It is important to note that the Lake Oswego Corporation does not operate without significant regulation. The fact is that the management of Lake Oswego is in complete compliance with every state and local agency that could conceivably have or wish to have jurisdiction concerning the lake. A few of the agencies involved are:

1. The Oregon State Department of Environmental Quality operated under guidelines of the Federal Environmental Protectional Agency.

2. The Oregon State Engineer and Oregon State Water Resources Board, as well as the Federal Bureau of Reclamation, with respect to water and flood control.

3. The Oregon State Marine Board with respect to boat licensing, fees and enforcement by the Lake Oswego Corporation of all state and federal marine laws. It should be noted that the Lake Corporation has adopted special water safety rules and regulations for the crowded conditions of the lake and that these rules were submitted to and approved by the State Marine Board

after public hearings at the request of the Lake Oswego Corporation.

4. Oregon State Fish and Game Commission with respect to the operation of a fish ladder at the Lake Oswego Corporation's diversion dam in the Tualatin River. The lake and its canals comprise a waterfowl sanctuary and game preserve.

5. Oregon State Health Department with respect to water pollution control and monitoring and maintaining water quality. It should be noted that the Lake Oswego Corporation has undertaken an extensive water quality study and program of water quality improvement, privately funded by assessment of the homeowners. The lake's water quality is maintained at a higher level than the accepted requirements for municipal drinking water prior to chlorination.

Although the Lake Oswego Corporation has worked with area state and federal agencies, in recent years other federal agencies have felt compelled to attempt to assert jurisdiction over Lake Oswego for one reason or another and to interfere with the extensive program of lake management by the Lake Oswego Corporation.

The first instance of potential agency interference occurred in 1972 when the Army Corps of Engineers attempted to assert jurisdiction over the lake in order to control water related construction and use of the lake. It was apparent that there was no basis or need for regulation by the Army Corps of Engineers and as a result, in 1976, Section 162 of the Water Resource Development Act was passed into law declaring Lake Oswego to be a non-navigable water and thereby eliminated the basis for the asserted federal regulation.

The Lake Oswego Corporation believed that the matter had been resolved, however, in 1979, the FERC issued its order proporting to determine that Lake Oswego was navagible and therefore subject to the Commission's jurisdicition. The reason for the Commission's apparent interest in Lake Oswego relates to the fact that the Lake Oswego Corporation continues to generate power from the single generator operated in connection with the small dam on the lake; a generator which operates on a part-time basis due to limitations in the water supply.

The Commission's attempt to assert jurisdiction over Lake Oswego cannot withstand careful scrutiny. Foremost, is the tremendous expense incurred by the Lake Oswego Corporation and its homeowner shareholders in completing an application for a federal power license and in complying with reporting requirements and attendant regulations concerning management of the lake. To give the subcommittee an idea of the cost involved, the Lake Oswego Corporation has already expended over $22,000 in connection with proceedings brought by the FERC. The total income to the Lake Oswego Corporation from the sale of power in recent years is as follows:

1978	$13,406	(1969 megawatt hours)
1979	$14,348	(1875 megawatt hours)

To place this amount of power in perspective, 2000 megawatt hours of power is enough power to supply electricity to approximately 100-125 homes a year.

In addition to the cost and expense involved in the immediate application, there is the prospect of the agency's interference with the established system of lake management developed by the Lake Oswego Corporation over the last 40 years.

Pursuant to the FERC's rules and regulations attendant to licensing, the Commission has the power to regulate all facets of lake use and development. The regulation would ential a comprehensive set of regulatory requirements that would overlay every aspect of use and management of Lake Oswego.

It might be a different matter if Lake Oswego was a source of significant water power. This is not the case, however, as Lake Oswego is a source of an insignificant amount of power and is a well maintained and managed private facility. The proposed regulation by the FERC not only interferes with private property interests, but threatens the finely tuned system of lake management that has been developed by the Lake Oswego Corporation in conjunction with all local governments in preserving the lake for the benefit of the general area.

This subcommittee should be aware that the maintenance and preservation of Lake Oswego is paid for by assessments of lake area residents. The burden of the increased cost and expense will fall on these homeowners.

SUMMARY

In summary, there is no need nor any purpose for intervention or regulation by the FERC; there is no legal basis for the Commission's assertion of jurisdiction; and finally, in these severe economic times there is no justification for this type of regulation that is a waste of money and resources of the community and the government. Passage of this legislation would remove any doubt as to the Commission's jurisdiction and would bring this matter to an end.

We have not burdened the subcommittee by suggesting that the thousands of home owners express their sentiments to the committee by written testimony. If the subcommittee feels it would be helpful, we would be happy to relay that message to the homeowners. In the meantime, on behalf of those people in the Lake Oswego area who would be adversely affected without this legislation, we ask the subcommittee to approve this legislation and to expedite its passage.

In closing, we call the attention of the subcommittee to the tremendous societal costs of this type of over-regulation. The FERC is not asserting jurisdiction to correct a deficiency that is jeopardizing hydroelectric power. It is attempting to assert jurisdiction over a single small generator and related facilities that have been successfully and efficiently operated for over 70 years. The Lake Oswego Corporation has maximized power production consistent with preservation of the lake environment and will continue to do so in the future. There is no reason to impose the substantial costs and interference associated with government regulation in this setting. Our citizen's and our government's resources are too valuable to be wasted in this manner.

Senator **Murkowski**. Thank you, Mr. Kennedy.

I might add that we, of course, will work with the Federal Energy Regulatory Commission in the drafting of the language and we would appreciate your input. If you have any specific suggestions on that it would be appreciated because it might expedite the matter. I'm sure you enjoy coming back to Washington, but by the same token we hope that the nature of the Federal Government will not again prevail. In view of a recent court decision with regard to a point source, there is an opinion that dams have become, pollution devices. As a consequence, I have introduced, along with a number of cosponsors and Senator Hatfield is among those cosponsors, S. 2280, to exempt dams from this program.

Basically it would involve the EPA and the NPDES, I don't know what that means either, but the first part means national pollution discharge. And my professional staff assistant is looking up the ES. But it would require EPA to go out and basically license dams. And the cost of that has been estimated to be I'm told in the millions.

Obviously that isn't the intent of the law. We hope that by this proposed legislation we can again give you some support that Lake Oswego is a private development and not subject to the Federal Government's applications and interpretations.

But I'm extremely pleased that Senator Hatfield is a cosponsor to this bill, and hopefully we can resolve yet another effort to move into the area of regulating dams by declaring that they are not pollutants of some sort.

Senator, do you have any further statements?

Senator **Hatfield**. No. You're very familiar in our State; I'm sure that you're familiar with this area.

Senator **Murkowski**. That's right. I bought a used car out there once.

Senator **Hatfield**. I do want to say that FERC has been, the Federal Energy Regulatory Commission, has been very understanding of this. I think they felt constrained to raise the question and I have not sensed an adversarial relationship at all with FERC on this, but rather seeking to clarify their previously enacted legislation. So I do think they have been very cooperative and will continue to be so in trying to resolve this. And since it isn't totally private, nonpublic area, you are familiar with the fact that it is probably one of the nicest residential sections of the Portland area, there are standards, as Mr. Kennedy and Mr. Halvorsen said, that are far above any standards that could be imposed by the Federal regulatory agencies or the State regulatory agencies. Maintaining the quality of the water and the various other regulations governing this body of water in this area.

So I want to thank you again for the time you've taken to give us this hearing and I will work with you as a member of this committee, working out the language for the amendment.

Senator **Murkowski**. Thank you, Senator Hatfield. And thank you Mr. Halvorsen and also thank you Mr. Kennedy.

For those of you who might have been curious, the last part of NPDES, national pollution discharge elimination system.

The next witness is Ms. Kristina Nygaard, Acting Assistant General Counsel for Hydroelectric Licensing, Federal Energy Regulatory Commission. We welcome you to the committee and look forward to your testimony which I have before me, and I see you have rather extensive testimony.

Ms. **Nygaard**. Three pages are testimony.

Senator **Murkowski**. You may proceed.

STATEMENT OF KRISTINA NYGAARD, ACTING ASSISTANT GENERAL COUNSEL FOR HYDROELECTRIC LICENSING, FEDERAL ENERGY REGULATORY COMMISSION

Ms. **Nygaard**. I'm pleased to be here this morning to discuss S. 1573, a bill to amend the Water Resources Development Act of 1976 with respect to the Lake Oswego hydroelectric project in Oregon.

My name is Kristina Nygaard, and I am Acting Assistant General Counsel for Hydroelectric Licensing at the Federal Energy Regulatory Commission. I would like to state at the beginning of my testimony that I am appearing before you as a technical expert and speak only for myself, not for the members of the Commission.

A brief summary of the administrative proceedings in the Lake Oswego case may be helpful. On August 4, 1977, the Lake Oswego Corp. petitioned the Federal Energy Regulatory Commission for a declaratory order finding that the Commission lacks licensing jurisdiction over its hydroelectric facility at Lake Oswego, Oreg.

Specifically, the Commission was asked to find that the hydroelectric facility is operated on a nonnavigable waterway and does not affect the interests of interstate commerce. In a series of orders, copies of which I am submitting for inclusion in the record, the Commission determined that the Lake Oswego project impounds navigable waters, as that term is defined in section 3(8) of the Federal Power Act, 16 U.S.C. 796(8)(1976).

Pursuant to that determination, the Commission ordered the Lake Oswego Corp. to file a short-form license application for the project, which was submitted on August 18, 1981 and supplemented on January 22, 1982. The staff's review of the license application is virtually completed. Concurrently, the Commission's orders in the Lake Oswego case are the subject of an appeal currently pending in *Lake Oswego Corp.* v. *FERC*, 9th Cir. No. 81-7351.

The proposed legislation, S. 1573, would declare the waters affected by the project to be nonnavigable for purposes of the Federal Power Act. This approach would preclude the Commission from asserting its licensing jurisdiction over the project on the basis of navigability. The bill would not, however, necessarily preclude the Commission from licensing the project in the future, if present circumstances change.

For instance, under section 23(b) of the act (16 U.S.C. 817 (1976)), the Commission must require licensing if the project affects the interests of interstate or foreign commerce. The power from the Lake Oswego facility is currently sold to a utility that is part of an interconnected interstate system. This fact would be sufficient to support a finding of effect on interstate commerce.

Only the absence of construction work on the project since 1935, a condition found by court decision to be essential, precludes the Commission from asserting licensing jurisdiction on this basis. This jurisdictional obstacle would disappear if the project owner were to commence any construction other than repair or maintenance.

In addition, if the Lake Oswego Corp. does not obtain a license for the the Lake Oswego project, some other party may apply for and receive a license for the project. The Commission in certain situations has authority to issue licenses, when requested, even when it is without authority to require that a project be licensed; that is, its licensing authority is broader than its enforcement authority.

The Commission's licensing authority is set forth in section 4(e) of the Act, (16 U.S.C. 797(e) (1976)), and extends to "streams or other bodies of water over which Congress has jurisdiction under its authority to regulate commerce with foreign nations and among the several States * * *" A body of water may meet this broad standard even though it has been found to be nonnavigable for purposes of the act. Furthermore, our jurisdiction under section 4(e) does not depend upon post-1935 construction.

If the purpose of the proposed legislation is to remove this hydroelectric facility from the Commission's licensing jurisdiction, then Congress might wish to consider exempting the Lake Oswego hydroelectric facility from part I of the Federal Power Act. The Commission would thereby be totally barred from issuing a license authorizing the construction, operation, or maintenance of a hydroelectric facility at that site.

This concludes my prepared statement, Mr. Chairman. I would be happy to answer any questions which you may have.

[The attachments to Ms. Nygaard's statement follow:]

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

JURISDICTION;
NAVIGABLE WATERS

Before Commissioners: Georgiana Sheldon, Acting Chairman;
Matthew Holden, Jr., and George R. Hall.

Lake Oswego Corporation) Docket No. E-9601

ORDER FINDING LICENSING REQUIRED

(Issued May 3, 1979)

On August 14, 1977, the Lake Oswego Corporation petitioned the Commission to declare that the existing Lake Oswego Hydroelectric Project is not required to be licensed by the Commission under Part I of the Federal Power Act. The project includes a concrete dam that retains the raised waters of Lake Oswego. Water is diverted through a 1,200-foot-long wood-stave penstock to a concrete powerhouse containing a 900-hp turbine directly connected to a 500-kVA generator. The Lake Oswego Corporation contends that an order issued by the State Engineer of Oregon is the only permit required for the continued operation of the Lake Oswego Project. 1/

History of Navigability

Historical records document that Lake Oswego has long been part of a network of general and commercial transportation, aided by portages, between the vicinities of Portland, Oregon (on the Willamette River) and Hillsboro, Oregon (on the Tualatin River). During the latter part of the 19th century the Tualatin River, Lake Oswego (also known as Sucker Lake, at one time), and the Oswego Canal were used by steamers to transport freight and passengers.

In 1865, the Sucker Lake and Tualatin River Railroad began operating in the vicinity of Lake Oswego to supply timber to a sawmill on Sucker Creek, the lake's outlet to the Willamette River: 2/

1/ According to the petition, on December 9, 1959, the State Engineer of Oregon issued to the Oregon Iron and Steel Company (predecessors-in-interests to petitioners) a right to use 57.5 cfs of water from the Tualatin River for the purpose of generating electric power at its Oswego Plant.

2/ H.M. Corning, Willamette Landings 172 (1974).

> Encouraged by its successes, the railroad's proprietors laid plans for a general transportation service from Portland to Hillsboro. The route then in use was around the Willamette Falls by portage; then along the north bank of the Tualatin, also by portage, to steamers loading upriver freight at James Moore's flouring mill above the river's un-navigable mouth. *The proposed route would proceed from Portland by boat, to the landing below Oswego; from the bank of the Willamette to Sucker Lake by portage; along the lake shore, about three miles, to the railroad; over this to the Tualatin River*; thence up the Tualatin by boat to Hillsboro. It was thought that, operated in reverse, freight might be brought to Portland at a cost of about $6 per ton .... The plan seemed especially feasible since at that time the river road out of Portland, along the west bank of the Willamette, had fallen into general disuse about three miles south of town, due to the preference for transit by water .... [*Id.* at 172-73 (emphasis added).]

During 1866, the Oswego Milling Company built the steamer *Minnehaha* for the trip along the lake from the portage to the railroad. A second steamer, the *Onward*, plied the Tualatin River as a part of this general transportation scheme. Corning reports:

> By the beginning of 1869, the *Onward* ran from the Depot -- now Colfax -- to Emerick's Landing, sixty miles upriver. Throughout the shipping season the boat left Colfax on its upstream trip every Thursday morning, bound as far as Forrest Grove and Centerville Landing; touching, wherever flagged, at intermediate points. Returning, it left Forest Grove and Centerville Landing each Monday at 6:00 A.M. Portland passengers wishing to connect with the weekly upriver schedule of the *Onward* had to take the steamer *Senator* .... On Wednesday evening ... passengers stopped at Shade's Hotel, in Oswego. Early the next morning the steamer *Minnehaha* was boarded for the trip across Sucker Lake .... From the dock at the head of the lake the portage railroad took the travelers to Colfax and the *Onward*. [*Id.* at 174-75.]

The Oswego Canal, which was constructed in the vicinity of the previously mentioned railroad portage that connected Lake Oswego with the Tualatin River, was completed in 1871 or 1872. Willamette Landings, refers to a canal passage by the Onward in 1873: 3/

> Finally, in 1873 the Onward successfully negotiated the narrow passage cut between the Tualatin and Lake Oswego. [Id. at 181.]

In addition to the steamers and other boats that regularly plied the waters of Lake Oswego, logs were rafted from the upper reaches of the Tualatin River, through the canal, to an iron blast furnace on Lake Oswego. According to Corning, "[t]he sawmill, situated so that the foot of the lake served as log-pond with the creek furnishing power, was 150 feet long and 42 feet wide." [Id. at 170.] A recent study 4/ conducted by several federal and state agencies also concluded that logs to be used in making charcoal were rafted from the upper reaches of the Tualatin to an iron blast furnace on Lake Oswego.

Legal Standards of Navigability

"Navigable waters" under the Act are:

> those parts of streams or other bodies of water over which Congress has jurisdiction under its authority to regulate commerce with foreign nations and among the several States, and which either in their natural or improved condition notwithstanding

---

3/ This appears to have been the first passage of a steamer through the canal, for the Morning Oregonian of October 22, 1872, at 3, had mentioned:

> As yet no steamer has passed from the Tualatin River to Oswego Lake through the canal which was completed just a few weeks since .... Nothing but a few small boats and rafts has yet passed down the river to the lake.

4/ See Willamette Basin Comprehensive Study--Water and Related Land Resources (1969) Appendix I - Navigation, (at I-5).

> interruptions between the navigable parts of such streams or waters by falls, shallows, or rapids compelling land carriage, are used or suitable for use for the transportation of persons or property, in interstate or foreign commerce, including therein all such interrupting falls, shallows, or rapids .... [16 U.S.C. §796(8) (1976).]

The Supreme Court has handed down a long line of cases concerning navigability. Moving beyond the "navigation in fact" test enunciated in *The Steamer Daniel Ball v. United States*, 10 Wall. 557 (1871), the Supreme Court declared in *United States v. The Steamer Montello*, 20 Wall. 430, 441 (1874):

> [T]he true test of the navigability of a stream does not depend on the mode by which commerce is, or may be, conducted, nor the difficulties attending navigation .... [T]he capability of use by the public for purposes of transportation and commerce affords the true criterion of the navigability of a river rather than the extent and manner of that use.

In *Economy Light and Power Co. v. United States*, 256 U.S. 113, 122 (1921), the Court addressed the relevance of obstructions in a river:

> Navigability in the sense of the law, is not destroyed because the watercourse is interrupted by occasional natural obstructions or portages; nor need the navigation be open at all seasons of the year, or at all stages of the water.

The Court concluded that obstructions, even if artificial, as well as changes in transportation methods which result in abandonment of a river for trade and travel, do not change the river's status as a navigable water. [*Id.* at 124.]

In 1940 the Supreme Court decided *United States v. Appalachian Electric Power Co.*, 311 U.S. 377 (1940), which also involved navigability under the Federal Power Act. *Appalachian* restated much of the previous case law on navigation and developed several significant new themes. Of particular relevance to the present case, the Court said:

> Nor is it necessary for navigability that the use should be continuous. The character of the region, its products and the difficulties or dangers of the navigation influence the regularity and extent of the use. Small traffic compared to the available commerce of the region is sufficient. Even the absence of use over long periods of years, because of changed conditions, the coming of the railroads or improved highways does not affect the navigability of rivers in the constitutional sense. [Id. at 409-410. (emphasis added).]

The Commission and courts have also determined that floatation of logs is sufficient to support a finding of navigability. In Wisconsin Public Service Corp. v. Federal Power Commission, 147 F.2d 743, 798 (7th Cir. 1945), the court upheld the Commission's finding of navigability by declaring:

> [A] long, regular and commercially successful use of the stream for the transportation of logs and rafts ... forms a reasonable basis in law for the conclusion that the Wisconsin River was and is a navigable water of the United States.

More recently the Commission underscored the sufficiency of logging as a basis for finding navigability, stating:

> The evidence here of lumbering and rafting alone is sufficient to satisfy the log-driving test of navigability we have followed for over two decades with the approval of the courts. [Union Carbide Corp., 32 F.P.C. 770,773 (1969)]

Of course, any finding of navigability, as § 3(8) of the Act makes clear, is dependent on the existence or possibility of interstate or foreign commerce. A water can be a navigable waterway of the United States when it forms by itself, "or by uniting with other waters a continued highway over which commerce is or may be carried on with other States or foreign countries." The Daniel Ball, 10 Wall. at 563. Changes in mode of transportation do not prevent a water from being part of a continued highway of commerce. Wisconsin Public Service Corp., 147 F.2d at 748. In Rochester Gas and Electric Corp. v. Federal Power Commission, 344 F.2d 594, 597 (1965), the court supported the Commission's inference that:

> some of the goods eventually must have crossed state or national boundaries ... [because] use of a river for shipments demonstrates its suitability for use as a connecting waterway for interstate or foreign shipments ..., [especially] where the river runs directly into acknowledged avenues of interstate or foreign commerce ... .

Conclusions

The historical uses of Lake Oswego, when judged in the light of the legal precedents set forth above, clearly show that Lake Oswego is a navigable water of the United States. The lake has been navigated by commercial boats and has also been used to float logs for commercial purposes. Lake Oswego was an integral part of a continued highway of commerce over which goods and people, were carried down the upper reaches of the Tualatin River, through the Oswego Canal or by railroad, across Lake Oswego, and overland by portage to the Willamette River, a navigable waterway of the United States. 7/ The evidence shows that Lake Oswego has been an integral part of a transportation system that encompassed other waters -- such as the Willamette -- acknowledged to be avenues of interstate or foreign commerce. Lake Oswego is, therefore, a navigable water of the United States within the meaning of section 3(7) of the Act. 8/

7/ See Tenth Annual Report of the Federal Power Commission Minor License, Project No. 38 (issued Jan. 8, 1930); and 23 FPC 831, 832 (1960).

8/ In 1974, the United States Coast Guard declared that "the waters of Lake Oswego and the Oswego Canal are navigable waters of the United States and accordingly, water subject to the jurisdiction of the United States for the purposes of Coast Guard jurisdiction ... ." Letter from Capt. C. R. Hallberg, United States Coast Guard, to the Commission's Secretary (dated April 25, 1974).

In 1972, the U.S. Army Corps of Engineers declared that Lake Oswego was a navigable water of the United States under section 10 of the Rivers and Harbors Act of 1899 [33 U.S.C. §401 (1976)]. See Notice of 17 March 1972, file NPPND-M1-P, Portland District. The Water Resources Development Act of 1976, however, subsequently declared Lake Oswego nonnavigable, but only for the purpose of section 10 of the Rivers and Harbors Act of 1899. Pub. L 94-587, § 162, 90 Stat. 2934 (eff. Oct. 22, 1976).

Because the Oswego Project's dam is located across the outlet of, and impounds, a navigable water, section 23(b) of the Federal Power Act 10/ requires that the project be licensed. The state permit authorizing project use of water from the Tualatin River does not affect this statutory licensing requirement. 11/ The Lake Oswego Project does, however, qualify under our regulations as a minor project, for which application requirements are minimal. 12/ To assist the Lake Oswego Corporation, our staff is available for consultation about the application requirements.

The Commission finds:

Lake Oswego, also known as Sucker Lake, which empties through Sucker Creek into the Willamette River in the State of Oregon, is a navigable water of the United States.

The Commission orders:

Within 180 days from the date of issuance of this order, the Lake Oswego Corporation of Lake Oswego, Oregon, owner of the Lake Oswego Project, shall file an application for a minor license in conformance with §4.60 of the Commission's regulations.

10/ 16 U.S.C. §817 (1976).

11/ Cf. Section 9(b) of the Act, 16 U.S.C §802(b) (1976).

12/ See 18 CFR 4.60 (1978) [as amended, Order No. 11, Docket No. RM78-9 (issued Sept. 11, 1978) (43 Fed. Reg. 40215)].

By the Commission.
(SEAL)

Lois D. Cashell,
Acting Secretary

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

RECONSIDERATION

Before Commissioners: Charles B. Curtis, Chairman;
Georgiana Sheldon, Matthew Holden, Jr.,
and George R. Hall.

Lake Oswego Corporation) Docket No. E-9601

ORDER PERMITTING SUBMISSION IN SUPPORT OF MOTION FOR RECONSIDERATION

(Issued August 1, 1979)

On July 2, 1979, the Lake Oswego Corporation filed a petition for rehearing or reconsideration of the Commission's May 3, 1979, order finding that Lake Oswego is a navigable water of the United States within the meaning of Section 3(8) of the Federal Power Act; and that the Oswego Hydroelectric Project must therefore be licensed. The petition also requests the Commission to extend or waive the time for filing for rehearing, and to hold a hearing or allow the submission of evidence and briefs.

Section 313(a) of the Federal Power Act 1/ provides that a person aggrieved by a Commission order who wishes to obtain a rehearing on the order and to preserve the right to seek review in a United States court of appeals must file an application for rehearing within 30 days of the date of issuance of that order. The pertinent period following our order of May 3 therefore expired on June 4, 1979.

In its filing, Lake Oswego Corp. sets forth several reasons for failing to file its application for rehearing within the statutory 30 day period, and asks that we waive or extend the time for filing. The reasons given suggest that it neglected to familiarize itself with the provisions of the Federal Power Act and the Commission's rules of

---

1/ 16 U.S.C. § 825 l(a) (1976).

practice and procedure. 2/ In any case, we cannot extend or waive Section 313's requirement that applications for rehearing be filed within 30 days of issuance of our order. Failure to file within that time period is a statutory bar to applications for rehearing. 3/ Although we are foreclosed from entertaining an application for rehearing, in the exercise of our discretion we shall treat Lake Oswego Corp.'s July 2 filing as a motion for reconsideration.

In support of its contention that an evidentiary hearing should have been held, Lake Oswego Corp. argues that it did not request a decision without a hearing, that staff counsel did not request that a hearing not be held, and that there was no finding that due and timely execution of the Commission's functions imperatively and unavoidably required a decision without a hearing, citing §1.30 of our regulations. By its very terms, that section applies only to "proceedings required by statute to be determined on the record after opportunity for hearing." Part I of the Federal Power Act, under which this proceeding arises, provides an opportunity for hearing only in certain limited instances. 4/ The Act does not guarantee an opportunity for hearing on proceedings like this one, involving an investigation under §4(g) of occupancy of a stream for the purpose of developing electric power and a determination that licensing is required under §23(b). Our regulations provide no independent right to a hearing in such proceedings. In fact, our regulations quite explicitly inform applicants that:

2/ Section 313 itself provides that an application for rehearing be filed "within 30 days after the issuance" of the disputed order." Section 1.13(c) of our regulations provides that an order is effective on the date of issuance unless otherwise specially provided in the order. No prior notice to Lake Oswego Corp. that a hearing would not be held was necessary, because, as discussed below, neither the Federal Power Act nor our regulations provided a right to a hearing on this matter, and Lake Oswego Corp. never requested us to hold a hearing as a matter of our discretion.

3/ See, e.g., Appalachian Power Co., 52 F.P.C. 317, 319-321 (1974); Niagara Mohawk Power Corp., Project No. 2645, Order on Reconsideration (issued Dec. 28, 1978).

4/ See §§5, 7(c), 10(e), 14(a), 15(b), 20, and 23(a) [16 U.S.C. §§798, 800(c), 803(e), 807(a), 808(b), 813, 816 (1976)].

> Hearings are not required to be held in all of the Commission's proceedings. Where no hearing is held, the Commission acts on the basis of the material filed and the staff studies and recommendations thereon. [18 C.F.R. 3.103.]

In this proceeding, we acted in accordance with that provision. We conclude that there was no procedural defect underlying our order of May 3, 1979.

Turning to the allegations of substantive error, Lake Oswego Corp.'s motion for reconsideration does nothing but state in conclusory language that our decision "erroneously finds that Lake Oswego is a navigable water of the United States ... [because:]"

> a. Lake Oswego historically was not navigable and is non-navigable.
>
> b. The history recited by the Commission is incomplete and the conclusions drawn therefrom are incorrect.
>
> c. Lake Oswego is non-navigable as a matter of law under applicable statutes, including legislative history, and under controlling case law. [Emphasis in original.]

But Lake Oswego Corp. does not point to any part of our analysis of the historical evidence or the applicable law that is supposedly in error, or how the conclusion drawn might be faulty, or what statutes, legislative history, or case law support its view. The allegations of error in Lake Oswego Corp.'s motion fail to take issue with our order with the degree of specificity that would be necessary to support a petition for rehearing and subsequent judicial review. 5/ The Federal Power Act requires "something more concrete and specific than the vague references" in Lake Oswego Corp.'s motion; it demands a degree of specificity sufficient to call the Commission's attention to the particular ways

---

5/ Section 313(a) of the Federal Power Act states: "The application for rehearing shall set forth specifically the ground or grounds upon which such application is based."

in which it has allegedly erred "to stimulate [the Commission's] consideration of them." 6/ Thus, the motion fails to give the Commission "notice of its alleged errors so that it may have an opportunity to correct them." 7/

Because of the lack of specificity in Lake Oswego Corp.'s pleadings, we would be justified in denying its motion. In the exercise of our discretion, however, in this instance we believe that it would neither be unreasonable nor offend the public interest to permit Lake Oswego Corp. to submit a memorandum in support of its motion for reconsideration, explicating in detail the specific errors of law or fact that it alleges with respect to our finding that Lake Oswego is a navigable water of the United States. Upon receipt of that memorandum, we shall proceed to take further action on its motion for reconsideration.

The Commission orders:

No later than 45 days from the date of this order, Lake Oswego Corporation may file a memorandum in support of its July 2, 1979, motion for reconsideration of the Commission's May 3, 1979, "Order Finding Licensing Required" in this docket. That memorandum shall explain fully the specific errors of law or fact alleged with respect to the Commission's finding that Lake Oswego is a navigable water of the United States within the meaning of Section 3(8) of the Federal Power Act, including discussion of legislation and case law and a proffer of any evidence on which its contentions rely.

By the Commission.

Kenneth F. Plumb,
Secretary.

6/ North Carolina v. FPC, 533 F.2d 702, 705-06 (D. C. Cir. 1976), vacated on other grounds, 429 U. S. 891; see also City of Vanceburg v. FERC, 571 F.2d 630, 642 (D. C. Cir. 1977), cert. denied, ___U.S.___, 99 S. Ct. 79 (1978).

7/ North Carolina v. FPC, 533 F.2d at 705, citing FPC v. Colorado Interstate Gas Co., 348 U. S. 492, 500 (1955)

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

RECONSIDERATION;
NAVIGABLE WATERS

Before Commissioners: Georgiana Sheldon, Acting Chairman;
Matthew Holden, Jr., George R. Hall
and J. David Hughes.

Lake Oswego Corp.) Docket No. E-9601

ORDER DENYING RECONSIDERATION

(Issued February 20, 1981)

By order dated August 1, 1979, we granted the Lake Oswego Corp. (Petitioner) 45 days in which to submit a memorandum of law and fact in support of its July 2, 1979 petition for reconsideration of the Commission's May 3, 1979 "Order Finding Licensing Required" in this docket. We have received and considered Petitioner's memorandum, and for the reasons discussed below deny its motion for reconsideration.

Petitioner argues in support of its petition that: (1) when Congress enacted the Water Resources Development Act of 1976 (Pub. L. 94-587), it declared the waters of Lake Oswego to be non-navigable, thereby altering the authority and jurisdiction of the Commission--if, in fact, the Commission or any other federal agency ever had authority over the lake; and (2) the Commission relied upon an incomplete history of the usage of Lake Oswego and failed to take into consideration the proper legal standards of navigability as they apply to a privately-owned lake such as Lake Oswego.

First, Petitioner correctly states that Senator Hatfield of Oregon introduced in the Senate a bill (S.2315) that would have declared Lake Oswego and its canals "to be non-navigable waters of the United States within the meaning of the Constitution and laws of the United States." Had Congress enacted such a sweeping declaration, Petitioner's argument would be better taken. Congress, however, chose to focus instead on the reason behind Senator Hatfield's bill, which was to exempt Lake Oswego from Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. §401). Section 10 requires a Corps of Engineers permit for any wharf or pier constructed in the navigable waters of the United States.

> Section 162 of Pub. L. 94-587 states:
> For the purposes of section 10 of the Act of March 3, 1899 (30 Stat. 1151)(33 U.S.C. 401) the following bodies of water are declared non-navigable: Lake Oswego, Oregon; Lake Coeur d'Alene, Idaho; and Lake George, New York.

This section was taken verbatim from Section 52 of S.3823, which was reported out of the Senate Committee on Public Works and accompanied by S. Rep. No. 94-1255, 94th Cong., 2nd Sess. 124 (1976). The Senate report states that Section 52 is:

> only for the purposes of regulating boat docks and similar structures that might impede navigation. It affects no other aspects of the jurisdiction of the United States, such as those that may be administered by the Environmental Protection Agency, the Coast Guard, the Fish and Wildlife Service, or even the Corps of Engineers under other provisions of law.

It is clear that Congress' declaration of non-navigability was only for the purpose of Section 10 of the Rivers and Harbors Act of 1899 and does not preclude the Commission from finding that Lake Oswego is a navigable waterway within the meaning of Section 3(8) 1/ of the Federal Power Act (Act). Congress could have exempted the Lake Oswego Hydroelectric Project from the requirements of the Act or any other federal statute that may be triggered by a finding of navigability, but it declined to do so. Therefore, Petitioner's argument that Congress' declaration removed the Lake Oswego project from the provisions of the Act must be rejected.

1/ Section 3(8) states:

> "navigable waters" means those parts of streams or other bodies of water over which Congress has jurisdiction under its authority to regulate commerce with foreign nations and among the several States, and which either in their natural or improved condition notwithstanding interruptions between the navigable parts of such streams or waters by falls, shallows, or rapids compelling land carriage, are used or suitable for use for the transportation of persons or property in interstate or foreign commerce, including therein all such interrupting falls, shallows, or rapids, together with such other parts of streams as shall have been authorized by Congress for improvement by the United States or shall have been recommended to Congress for such improvement after investigation under its authority; [41 Stat. 1064; 49 Stat. 838; 16 U.S.C. 796(8)].

Second, Petitioner argues that the Commission misapprehended the facts and the law when it found Lake Oswego to constitute navigable waters within the meaning of Section 3(8) of the Act. Notwithstanding this assertion, Petitioner attempts to rebut only one--relatively insignificant-- fact that was cited in the Commission's May 3, 1979 order. Petitioner finds it "highly questionable" whether the steamer Onward ever passed through the canal linking Lake Oswego to the Tualatin River. This disbelief is apparently based on the conflict between the Onward supposedly having a beam of 17 feet and a September 16, 1909 memorandum from the Oregon Supreme Court which stated that "the canal was cleaned out so as to make it 6 feet wide at the narrowest place." One can readily see that the above two "facts" do not offer a sound basis for concluding that the Onward did not, in 1873, successfully negotiate the canal, as reported in Willamette Landings. 2/ The fact that the canal was "cleaned out" to a width of 6 feet in no way suggests how wide the canal may have been when first constructed.

Even if we were to assume that steamboats never successfully negotiated the canal, we would not consider our order to be deficient. Steamboats passing through the Oswego Canal is not the only evidence that we relied upon in finding Lake Oswego to be navigable waters within the meaning of Section 3(8) of the Act. We also found that logs had been rafted from the upper reaches of the Tualatin River, through the canal, to an iron blast furnace on Lake Oswego. Petitioner did not object to this finding. Moreover, Section 3(8) specifically recognizes that navigable waters may include obstructions which compel land carriage. Thus, the fact that relatively large steamers may have encountered difficulty in passing through one stretch of a watercourse--in this case the canal--but could ply the waters above and below that stretch, does not preclude a finding that the entire watercourse is a navigable waterway within the meaning of Section 3(8) of the Act.

Petitioner also argues that we did not apply the correct legal standards in finding Lake Oswego to be navigable waters within the meaning of Section 3(8) of the Act. Petitioner contends that Lake Oswego is essentially a landlocked lake and that its navigable status should be determined by referring to a series of decisions that have found inland bodies of water

---

2/ H. M. Corning, Willamette Landings 181 (1974).

not to constitute navigable waters within the meaning of the Rivers and Harbors Act of 1899. 3/

These decisions are, in our opinion, factually distinguishable from the situation here. In each case, the court found the body of water in question to be an inland lake that had no connection with navigable interstate waters. Conversely, Lake Oswego is part of a continuous watercourse reaching the Pacific Ocean that consists of a navigable segment of the Willamette River, the relatively short non-navigable Oswego Creek, the navigable Lake Oswego, a canal that may or may not have been navigated by steamboats, and a navigable segment of the Tualatin River. 4/ Not each and every part of this continuous watercourse is navigable, but it need not be in order to meet the requirements for navigable waters within the meaning of Section 3(8) of the Act.

The Supreme Court in U. S. v. Appalachian Electric Power Co., 311 U.S. 377 (1940), its most recent decision dealing with navigability under the Act, made clear that navigability can be found "despite the obstruction of falls, rapids, sandbars, carriers or shifting currents." Moreover, the Court found that "absence of use over long periods of years, because of changed conditions, the coming of the railroad or improved highways does not affect the navigability of rivers in the constitutional sense." These principles, coupled with the well-documented uses of the waters in question to transport passengers and freight from Hillsboro to Portland and beyond, lead us to conclude that Lake Oswego is part of a continuous waterway that has functioned in the past as an avenue of interstate or foreign commerce, and that the non-navigable portions of this waterway do not preclude a finding that the entire waterway is navigable within the meaning of Section 3(8) of the Act.

The cases cited by Petitioner are also inapposite because they were decided under the Rivers and Harbors Act of 1899, which carried no definition of the term "navigable waters" and therefore relied for guidance entirely upon the Steamer Daniel Ball

---

3/ Minnehaha Cr. Watershed Dist. v. Hoffman, 440 F. Supp. 876 (D. Minn. 1978); Hardy Salt Co. v. Southern Pacific Trans. Co. 501 F.2d 1156 (2d Cir. 1974) cert. denied, 419 U.S. 1033 (1974); Johnson V. Wurthman, 227 F.Supp. 135 (D. Or. 1964).

4/ Petitioner admits that the Willamette River "has always been navigable to a point", that the "Tualatin River may at one time have been navigable to an extent", and that "Lake Oswego served as a navigable water to the extent that it has been used for floatation of logs from one side of the lake to the other or for the transportation of passengers or cargo from one part of the lake to the other.

and its progeny. 5/ Conversely, in Section 3(8) Congress defined navigable waters for the purpose of implementing comprehensive federal regulation of the nation's waterpower resources. The definition of "navigable waters" in Section 3(8) is clearly broader than the judicially-derived definitions previously announced by the Supreme Court, and cannot be limited by the Court's previous or subsequent rulings pertaining to navigability under the Rivers and Harbors Act of 1899. By the same token, "navigable waters" under Section 3(8) of the Act has not been expanded by more recent legislation that defines "navigable waters" as "waters of the United States." 6/

Although Lake Oswego is part of a continuous waterway that has, in the past, transported people and property in interstate or foreign commerce, it should be noted that Section 3(8) does not require that navigable waters be part of a "continuous" waterway, as is apparently the case for navigable waters under the Rivers and Harbors Act of 1899. Indeed, Section 3(8) specifically declares that navigable waters may include "parts of streams or other bodies of water [that] ... are used or suitable for use for the transportation of persons or property in interstate or foreign commerce... ." Congress apparently wanted to regulate the waterpower resources of all waterways that form a necessary link in a transportation route capable of carrying interstate and foreign commerce. 7/ We shall not defeat that purpose, which is entirely consistent with the principles underlying the concept of navigable waters, by adopting the overly narrow interpretation suggested by the Petitioner.

The Commission orders:

(A) The Lake Oswego Corp.'s motion for reconsideration of the Commission's May 3, 1979, "Order Finding Licensing Required" is denied.

(B) Within 180 days from the date of issuance of this order, the Lake Oswego Corp. of Lake Oswego, Oregon, owner of the Lake Oswego Project, shall file an application for a minor license in conformance with §4.60 of the Commission's regulations.

5/ The Steamer Daniel Ball, 10 Wall. 557 (1870).

6/ See, Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. §1362(7) (Supp. IV, 1974).

7/ See, First Iowa Hydro Electric Cooperative v. FPC, 328 U.S. 152, 180-181 (1946) ("it was the intention of Congress to secure a comprehensive development of natural resources and not merely to prevent obstructions to navigation"); and FPC v. Union Electric Co., 381 U.S. 90 (1965) (the Court found that the Act embodies the full measure of congressional authority under the commerce clause to regulate hydroelectric projects).

By the Commission.

(S E A L)

Kenneth F. Plumb

Kenneth F. Plumb,
Secretary.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Georgiana Sheldon, Acting Chairman;
Matthew Holden, Jr., George R. Hall
and J. David Hughes.

Lake Oswego Corp.) Docket No. E-9601

ORDER DISMISSING REHEARING

(Issued April 9, 1981)

On May 3, 1979, the Commission issued an order finding that the Lake Oswego Project is required to be licensed by section 23(b) 1/ of the Federal Power Act (Act). On July 2, 1979, the Lake Oswego Corp. (Oswego) filed an untimely petition for rehearing or reconsideration of the Commission's May 3, 1979 order. On August 1, 1979, the Commission dismissed Oswego's petition for rehearing, stating that section 313(a) 2/ of the Act is a statutory bar to entertaining a petition for rehearing that is not filed within 30 days after the issuance of the disputed order. The Commission did, however, entertain Oswego's motion for reconsideration, citing the Commission's discretionary practice of addressing arguments set forth in untimely petitions for rehearing. The Commission moreover permitted Oswego to submit a memorandum in support of its motion for reconsideration, explicating in detail the specific errors of law or fact alleged with respect to the Commission's May 3, 1979 order.

On February 20, 1981, the Commission considered Oswego's memorandum and denied Oswego's pending motion for reconsideration. The Commission did not change the May 3, 1979 order, which had found that the Lake Oswego Project must be licensed. Nevertheless, Oswego has now filed a petition for rehearing of the Commission's February 20, 1981 order denying reconsideration.

The Commission's order denying reconsideration, which was a discretionary response to an untimely petition for rehearing, is not itself subject to the process of rehearing and judicial review. It is the May 3, 1979 order finding licensing required

---

1/ 16 U.S.C. §817(1976).

2/ 16 U.S.C. §8251(a) (1976).

-- not the Commission's February 20, 1981 discretionary order denying reconsideration -- that aggrieves Oswego, and the Commission has already dismissed Oswego's untimely petition for rehearing of that order. 3/ Accordingly, Oswego's petition for rehearing of the February 20, 1981 order denying reconsideration is dismissed.

The Commission orders:

(A) The Lake Oswego Corp.'s March 13, 1981 petition for rehearing of the Commission's February 20, 1981 order denying reconsideration is dismissed.

(B) Alternatively, the above petition for rehearing is denied for failure to raise any issues of law or fact that were not considered previously.

By the Commission.
(SEAL)

Kenneth F. Plumb
Kenneth F. Plumb,
Secretary.

3/ See, e.g., Appalachian Power Co., 52 F.P.C. 317, 319-321 (1974); Niagara Mohawk Power Corp., Project No. 2645, Order on Reconsideration (issued Dec. 28, 1978).

FEDERAL ENERGY
REGULATORY COMMISSION
WASHINGTON, D.C. 20426

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

POSTAGE AND FEES PAID
FEDERAL ENERGY
REGULATORY COMMISSION
FERC 381

Senator **MURKOWSKI**. Thank you for your testimony. It was most informative and complete.

Do you have any idea how big the lake is?

Ms. **NYGAARD**. I read it somewhere and forgot.

Mr. **HALVORSEN**. 400 acres, sir. It's about 2½ miles long and about maybe three-eighths of a mile wide at its widest point.

Senator **MURKOWSKI**. And the drainage comes from?

Mr. **HALVORSEN**. The surrounding hillsides.

Senator **MURKOWSKI**. Is there any outlet of any consequence?

Mr. **HALVORSEN**. There's a small stream that flows out of it which was called Sucker Creek 150 years ago. Now we refer to it as the Lake Oswego discharge.

Senator **MURKOWSKI**. Any fish in it?

Mr. **HALVORSEN**. There used to be suckers in it 150 years ago, but now there are no fish there.

Senator **MURKOWSKI**. How do you know there were suckers 150 years ago?

Mr. **HALVORSEN**. That's why they called it Sucker's Creek.

Senator **MURKOWSKI**. I'm not going to be suckered into any more questions. [Laughter.]

Thank you, Ms. Nygaard. We appreciate your testimony.

Out next witness will be Mr. Wes Steiner, director of the Arizona Department of Water Resources, representing Governor Bruce Babbitt of Arizona. He's with us, I assume?

It's a pleasure to welcome you, Mr. Steiner, to the hearing and we look forward to your testimony.

I'm somewhat of an expert on the water resources in Arizona, having flown into the Theodore Roosevelt Dam in the last 3 or 4 weeks, and clearly enjoyed it. I was amazed to find such rugged and beautiful country in the back of Phoenix, probably so few people see. I have a deep appreciation of what Theodore Roosevelt Dam and the Salt River, at least that's the area I saw, have done for the desert.

With that brilliant observation I'll look forward to your expanded remarks.

STATEMENT OF WESLEY E. STEINER, DIRECTOR, ARIZONA DEPARTMENT OF WATER RESOURCES, ON BEHALF OF HON. BRUCE BABBITT, GOVERNOR, STATE OF ARIZONA

Mr. **STEINER**. Mr. Chairman, Governor Babbitt expressly asked me to thank you personally for having come to Arizona and for having held in Phoenix a few weeks ago a hearing on the safety of dams legislation which was of great importance to the State of Arizona. He also asked that I express his appreciation to you for scheduling the hearing today on S. 2177 and for your expeditious treatment of this legislation which is also of great importance to our State.

The distribution systems that must be constructed to convey water from the CAP's main aqueduct system to the farmers' fields are an integral and critical element of the project. Until the distribution systems have been completed, the CAP will remain incomplete and its potential to bring new life to central Arizona and to sharply reduce dependence on falling ground water tables will remain largely unrealized.

Arizonans have waited a long time for the promise of CAP water supplies. That promise is now within sight. The current schedule for construction of the CAP aqueduct system will permit first diversions of Colorado River water throughout much of the project's service area in 1985 and 1986. But without enactment of S. 2177 we won't be in a position to put that water to full use. To have this badly needed water supply in the main project canals and not have the ancillary capability to convey it to the fields would present an incomprehensible paradox.

The CAP was authorized by the Congress to provide relief of ground water overdraft problems in central Arizona. Arizonans were and still are, consuming water at almost twice the rate of annual replenishment with the result that ground water tables throughout the State are dropping at an alarming rate. To enhance the central Arizona project's potential to relieve overdraft and to balance water supply and consumption, the master contract executed between the Secretary of the Interior and the central Arizona water conservation district requires that all farmers reduce their pumping of ground water in amounts equal to the quantities of CAP water they receive.

Approximately 2 years ago, the Secretary of the Interior threatened to stop construction of the project unless the State of Arizona enacted comprehensive ground water management legislation that would assure that CAP water supplies were effectively utilized in correcting Arizona's water imbalance. In response, the State enacted in June 1980 the toughest, most comprehensive water management statutes in existence in the United States today and launched at considerable expense the program of management dictated therein.

Unless the distribution system ceiling is lifted or indexed for inflation there will be little project water used for agricultural purposes. Farmers will continue to mine the State's ground water resources until forced out of business by excessive pumping costs. As a direct consequence, the purposes of the State's new water management statutes would be made infinitely more difficult, if not impossible of accomplishment.

As you know, the act that authorized the central Arizona project provided for indexing of the costs of the back bone system of aqueducts, pumping plants and dams, but for some inexplicable reason failed to include indexing of the ceiling of $100 million on distribution system loans. The committee reports are silent and none of the Arizonans or Interior staff who participated in the CAP negotiations back in 1968, can recall any consideration being given to treating the ceilings for distribution systems and other project features differently. It appears simply to have been an oversight.

Distribution system costs will aggregate at least $350 million and may run as high as $550 million, depending upon the construction standards required by the Bureau of Reclamation.

The irrigation districts will assess their lands and bond to their full capability, but there is no way that they can contribute to the financing of the distribution systems at a level that would limit required Federal participation to the $100 million authorized in

Public Law 90–537. Since there is no feasible way that the required systems can be built for $100 million, even with maximum cost sharing by the districts, we urge congressional enactment of S. 2177 to correct the oversight and provide indexing for the distribution systems.

As best we can determine the ceiling on distribution system loans is unique to Public Law 90–537 and is not included as a provision or condition in the acts authorizing other reclamation projects. This ceiling, without provision for indexing is seriously constraining efforts by the irrigation districts and the Department of the Interior to complete distribution system designs and to implement their construction. We need an early decision from the Congress on the ceiling issue so that the districts and the administration will know the rules of the game and can implement and complete authorized distribution systems on a timely basis.

Mr. Chairman, I thank you for the Governor for the opportunity to testify here this morning.

Senator **Murkowski**. Thank you very much, Mr. Steiner. I want to commend you for your excellent testimony and also to ask that you convey to Governor Babbitt my thanks.

I think the case that has been made in your testimony perhaps deserves some mention. Again, the realization that a few years ago, a different Secretary of Interior, threatened to stop construction of this project. I think we've seen a dramatic turnaround in the attention of the administration with regard to water projects. We are seeing, obviously, 180-degree turnaround in support.

I intend to try to bring this before the full committee, within the next week to 10 days and hopefully we can move this thing along because, you know, that's not only our job, but it's a reality that that you are so dependent upon.

Please convey again, to the Governor, my appreciation and reassure him that we are trying to turn things around in this regard.

Thank you.

Mr. **Steiner**. Mr. Chairman, we are most appreciative of your efforts and I will certainly convey that to the Governor. Thank you.

[Subsequent to the hearing Mr. Steiner supplied the following:]

State of Arizona
DEPARTMENT OF WATER RESOURCES
99 E. Virginia Avenue, Phoenix, Arizona 85004

BRUCE BABBITT, Governor
WESLEY E. STEINER, Director

April 27, 1982

The Honorable Frank H. Murkowski
Chairman, Senate Subcommittee on Water and Power
Committee on Energy and Natural Resources
United States Senate - DSOB 3104
Washington, D.C. 20510

Dear Senator Murkowski:

During hearings before your Subcommittee on April 22, 1982, on S. 2177, you advised that the record would be kept open for a short period for supplemented statements. The purpose of this letter is to provide clarification on a question you raised during the hearing as to whether the proposed indexing of the $100 million figure in Section 309(b) of the Colorado River Basin Project Act would provide sufficient appropriation authorization to complete the non-Indian irrigation distribution system of the Central Arizona Project (CAP).

Loan applications for such distribution systems are based on the current estimated costs of construction, escalated through time of completion in approximately 1989 at inflation rates of 8 to 10 percent per year compounded, as recommended by the Bureau of Reclamation. Nine applications received by Reclamation and two more expected total in the order of $500 million.

Indexing the $100 million to 1982 equals approximately $320 million. Continued indexing through completion of construction of the systems in approximately 1989 at an inflation rate of some 8+ percent per year compounded, as was done in many of the loan applications, would equal over $550 million -- some $50 million more than the total expected loan applications.

Therefore, it appears that indexing as proposed in S. 2177 will provide ample funding authorization to complete all non-Indian irrigation distribution systems of the CAP.

Again, many thanks for the timely hearing and all of your other efforts to assist us.

Sincerely,

Wesley E. Steiner
Director

WES:pj

Think Conservation!
Office of Director 255-1554
Administration 255-1550, Water Resources and Flood Control Planning 255-1566, Dam Safety 255-1541,
Flood Warning Office 255-1548, Water Rights Administration 255-1581, Hydrology 255-1586.

Senator **Murkowski**. We are going to move to Mr. Don Paff, director of the Las Vegas Valley Water District, Las Vegas, Nev.

Mr. Paff, we understand you know all about those pumps, is that right?

Mr. **Paff**. Yes, Mr. Chairman. We've been living with sick pumps for 10 years.

Senator **Murkowski**. Please proceed.

STATEMENT OF DONALD L. PAFF, GENERAL MANAGER AND SECRETARY, BOARD OF DIRECTORS, LAS VEGAS VALLEY WATER DISTRICT, LAS VEGAS, NEV.

Mr. **Paff**. My name is Donald Paff. I am the general manager and secretary to the board of directors of the Las Vegas Valley Water District. The water district is the operating agent of the State of Nevada for the southern Nevada water project which was authorized by Public Law 89-292. The water district has operated the project since its completion in 1971 and has, since that date, annually received and paid for approximately 80 percent of the water delivered by the project.

The water district urges the committee's favorable action on S. 1621. We believe this legislation provides the proper action for a Federal-State-local joint venture to resolve the problem of these first stage southern Nevada water project pumps.

We believe it is urgent that the casings for the existing 12 Hitachi pumps be replaced at the earliest possible date. This is necessary in order to eliminate the current damage that is occurring, which causes extensive operations and maintenance costs. These costs are not limited exclusively to the casings which must be replaced, but extend into other components of the pumping units and the prime movers. An additional cost for the continuing extraordinary periodic inspections also add to the operating cost

Under the present conditions, it is expected that each pumping unit must undergo extensive repairs over each 4-year cycle. If the pumps can continue to accept repairs, which is doubtful, it is estimated that the maintenance costs alone to be paid by users would be approximately $1.725 million over the life of the pumps. For normal pumps, it is estimated that the same maintenance cost would not exceed $300,000. Therefore it is estimated that if the pump casings are not replaced, it will cost the water users approximately $1.425 million for extraordinary maintenance, notwithstanding the pumps would not be reliable, efficient, or have a normal life.

Hitachi America, Ltd., the pump manufacturer in cooperation with the Bureau of Reclamation, State of Nevada and the water district, has found a solution to the pump cavitation and allied problems. The solution developed over several years consists of replacement of the existing cast steel pump casings with stainless steel casings and reconditioning of the impeller and bearing components. These modifications have worked successfully for several years on 2 of the 14 units. Replacement casings for the remaining 12 units will allow the project to fulfill its functional and economic commitment, subject only to normal and expected routine maintenance.

With the passage of S. 1621 authorizing the purchasing of 12 additional stainless steel casings, the water users will share in the cost of casing replacements. The State and water users will participate in this replacement project by performing all installations and reconditioning of pumping units. This cost comes from current revenues derived from the water users. This estimated cost is $150,000 to $250,000 dependent upon how extensive the current damage is in each unit.

If the casings are not replaced in the very near future, there is a clear possibility that the project will be unable to meet its contract commitment of water deliveries to the water users. In 1981, the project water demand deliveries were met. Even with the additional capacity added by the second stage facilities, shortly to be completed, it will require approximately 25 percent of the capacity of the first stage to meet water demands for 1982.

By 1983, it is estimated that it will require approximately 75 percent of the total first and second stage capacity of the project to meet the increasing demands of the water users. During that period, it will be most critical that reliable pumping units be available. Any failure of the first stage project pumps beginning in 1982 will negatively impact water delivery abilities.

It is obvious to the water district, as operator of the project and as a water user, that a most serious problem exists in these first stage pumping units. Because of the continual and unrepairable damage to the pump casings and auxiliary components, the water users are facing harsh and extraordinary costs for operation and maintenance. In addition to the extraordinary costs, the water users must face the possibility of periodic inabilities of the project to supply their needs for water.

S. 1621 provides that 12 additional stainless steel casings be purchased with the installation and required repairs to be performed by the State and water users as their part of cost sharing in order to solve this complex and costly problem. We urge your favorable action on S. 1621.

Mr. Chairman, I would be pleased to answer any questions you may have.

Senator Murkowski. Thank you very much, Mr. Paff.

You indicated in your opening statement the water district since its completion has paid and received 80 percent of the water delivered by the project. Where does the rest of it go?

Mr. Paff. The cities of north Las Vegas, Henderson, Boulder City.

Senator Murkowski. Have you followed this project since its inception in 1971?

Mr. Paff. Yes Sir.

Senator Murkowski. At that time, the Federal Government, I assume, established specifications for pumps which would be necessary to move this water?

Mr. Paff. That is correct.

Senator Murkowski. And Hitachi was the low bidder. Were bids close?

Mr. Paff. Mr. Chairman, I do not recall. I recall the bids were approximately $900,000 and I do believe Hitachi pumps were low by a margin, but how much, I can't recall.

Senator Murkowski. Was there a guarantee on these pumps?

Mr. Paff. One year.

Senator Murkowski. Is that a convention in the marketplace?

Mr. Paff. Yes.

Senator Murkowski. Does that seem reasonable to you?

Mr. Paff. In this particular instance, now in hindsight, it's probably not reasonable, but it is normal for industrial manufacturers of this type of utility equipment to warranty for a 1-year period. It's a difficult thing that happened, of course. When the pumps are installed the warantee period starts, even though you may not be operating the pumps fully. Thus the time goes on without the operation and functions to perhaps have the ability to understand that the pumps are becoming defective.

Early on, our operating people determined that there was unusual activities going on in the pumps. They have an intuitive sense I believe to know these things are going on. We were assured at that time by the technicians and the designers that they felt that was not the case, later to be revealed that it was wrong and——

Senator Murkowski. So it was a design problem as far as you're concerned?

Mr. Paff. Essentially.

Senator Murkowski. Hitachi has attempted in the stainless steel replacements to modify it?

Mr. Paff. That's correct. In fact they went through several of them and they're supplying to us at no charge, they have participated in this to the tune of over $1 million. They supplied the two stainless steel casings that are now installed and running, at no cost for the prototype testing for this remedy.

We provided, of course, the installation costs.

Senator Murkowski. So you have 12 additional casings to be replaced.

Mr. Paff. That is correct.

Senator Murkowski. And Hitachi has manufactured these?

Mr. Paff. Yes. Very satisfactorily. In the two that we have, would be the source we believe that would be proper for the replacement.

Senator Murkowski. Let me ask you a general question that's unrelated, but was addressed previously to Commissioner Broadbent with regard to the attitude and the preparedness of water utility districts, when appropriate to just take over not only operation but to take title. Do you have any opinions on whether that has any application in the West?

Mr. Paff. My opinion is it's proper for the local entities to assume the responsibility for operation, maintenance, and ownership.

Senator Murkowski. Can you give me any reason why that hasn't been instituted?

Mr. Paff. In the case of the southern Nevada water project, the act of Congress allows the project to remain in the ownership of the Federal Government with the right of exclusive use to the users. In this particular case, I would consider it like a contract where we have a repayment obligation. And by the way, there are no nonreimbursable costs in the southern Nevada water project. A repayment project where the Federal Government holds the ownership of the project as collateral, assuring payment of the loan.

The project has a life of 50 years and at that point in time I would expect that the water users in this State would receive ownership.

Senator MURKOWSKI. So you feel there is an application for this, for transfer on a case-by-case basis. Would you be supportive if such legislation were introduced?

Mr. PAFF. Yes, and I think the resistance in the case of southern Nevada water project is we haven't paid for it yet. That would perhaps be collateral.

Senator MURKOWSKI. But you see some advantage once it's paid for of having that as an asset for the benefit of, I assume, bonding or whatever purpose?

Mr. PAFF. Yes, it would be part of an asset to the State or the owner which could then be used as perhaps collateral for bonding or an enlarged in-service cost of facilities. To my view in the case of southern Nevada, assuming that it was paid off there is no rationale that I would see that the ownership would remain in the Federal Government.

Senator MURKOWSKI. But yet this has been the case traditionally.

Mr. PAFF. I believe that is correct.

Senator MURKOWSKI. You don't know why the Federal Government has not seen fit to pass title on some of these?

Mr. PAFF. Perhaps there has been a resistance by some of the owners or some of the people who have had that opportunity, believing that there is some sovereignty or capability by the Government to maintain the ownership and therefore should something happen that owner would then be responsible in part for some activities later on. And perhaps that would be a motivation by some.

Senator MURKOWSKI. I would appreciate that if you have any further feelings or information on that, that you submit it to myself and Mr. Brown because I think this is something that may have an application and I think is worth looking at from the standpoint of Federal policy for those districts or agencies where it might be appropriate to pass title. My point and observation is one that this asset, as long as it remains on the Government books so to speak, doesn't have the capability that it could if a local utility had that kind of asset. It would theoretically be used to assist in bonding or other financial requirements for the water district or the power district and may result in financing at a lower rate structure under more favorable terms which would benefit the users in those districts. It doesn't do anything for the Federal Government the way the structure is set up now, but it could do something for a local district and I would appreciate any information you care to transmit to the committee.

I thank you very much for your testimony.

Mr. PAFF. Thank you, Mr. Chairman.

Senator MURKOWSKI. Our next witness is Mr. Duane Sudweeks, administrator, Colorado River Commission of Nevada, Las Vegas.

Mr. Sudweeks, we look forward to your testimony and wish you good morning.

STATEMENT OF DUANE R. SUDWEEKS, DIRECTOR, COLORADO RIVER COMMISSION OF NEVADA, ON BEHALF OF HON. ROBERT LIST, GOVERNOR, STATE OF NEVADA

Mr. SUDWEEKS. Thank you, Mr. Chairman.

There are two primary reasons for my being here today. The first reason is to present the testimony of the Honorable Robert List, Governor of the State of Nevada in support of S. 1621. Governor List expressed his regret that he was unable to appear personally.

The second reason is to present a resolution of the Colorado River Commission of Nevada which also endorses this proposed legislation.

I would request that both of those items be included as part of the record in this hearing.

Senator MURKOWSKI. It will be so noted and entered into the record as such.

Mr. SUDWEEKS. Governor List indicated he was pleased to be able to provide testimony in support of S. 1621 which has been recently introduced by Senators Cannon and Laxalt of the great State of Nevada. This bill provides, as has been previously discussed, for the replacement of pump casings for 12 of the 14 horizontal centrifugal pumping units of pumping plants 1A and 2A, the southern Nevada water project, stages I, Nevada.

It also has been previously mentioned, the two remaining casings have been previously replaced on an experimental basis.

These 14 units pump treated, potable water from a forebay adjacent to the State-constructed Alfred Merritt Smith Water Treatment Facility near the shore of Lake Mead through project water conveyance pipelines to terminal facilities which in turn feed the water distribution systems of the Las Vegas Valley Water District, the city of North Las Vegas, the city of Henderson, and Nellis Air Force Base, a tactical air command facility. The city of Boulder City also receives potable water through other project facilities.

The operation of these existing pumps and motors has been totally unsatisfactory. Maintenance costs have been extraordinary, and it is clearly evident that the lifespan of these units will be significantly shorter than normal. Remedial action to correct deficiencies inherent with these pumping units are critical to approximately 400,000 Nevada residents who rely on the southern Nevada water project for their municipal and industrial water supply.

The first stage of the southern Nevada water project was developed by the Bureau of Reclamation pursuant to the authority of Public Law 89-292. Contract specifications for the existing units in pumping plants 1A and 2A were prepared by the Bureau in 1968. Hitachi America, Ltd., was the successful low bidder, and subsequently furnished the pumps, motors, and appurtenant equipment; the company also supervised the installation. Responsibility for the operation and maintenance of the first stage of this project was transferred to the Colorado River Commission of Nevada in November 1971.

In January 1973 a unit was dismantled because an unusual noise had developed. Excessive cavitation damage was found as evidenced by holes that had penetrated completely through the impeller vanes. The cavitation damage was also apparent on the casings at the eye of the impeller, intake side. This particular unit had been operated for only 2,100 hours which is equivalent to approximately 90 days of continuous operation.

After disassembly of other units where the same wear characteristics were observed, the Commission notified the Bureau of this catastrophic problem. The Bureau communicated with Hitachi and outlined, in detail, the extensive cavitation problems which existed in these relatively new units. The 1-year warranty period had expired and Hitachi did not admit legal responsibility under the contract. Hitachi did, however, agree to reshape the leading edges of the vanes in all 14 impellers, and the company contributed $18,500 as its part of the costs. The project water users assumed the responsibility of the remaining costs including the cost of dismantling and reassembling the units. After testing, it was apparent that the cavitation problem had not been solved.

Senator **Murkowski**. I wonder if you could kind of summarize the remainder of your rather extensive statement.

Mr. **Sudweeks**. I'll be glad to.

Subsequent to this, there were some major changes that have been made in order to bring about a solution to the problem.

First of all, there was an installation of some redesigned impellers, modification of the casing baffle plates, and we've even tried changing the start-stop time sequencing of the pumping. All of these measures helped the magnitude of the problem but it did not totally resolve it.

In October 1978, representatives of the State of Nevada met with the Bureau to ascertain whether a long-term solution could be provided to this continuing problem. It was clearly evident at that time that the, first of all, the units would require far more than usual maintenance, and second they would have a significantly shorter lifespan than normal. Cost expended on the effort from its inception in 1973 approximate $1 million by Hitachi, $300,000 by the State of Nevada as project water users, and $150,000 by the Bureau. The Bureau's cost must be repaid by the project water users in the State of Nevada with interest pursuant to the repayment contract.

The impeller redesign, since inherent problems were discovered in 1973, indicate that many factors were involved. For example, the synchronous speed of the units which operate at 1,200 revolutions per minute, the magnitude of suction and discharge head, the corrosive effects of the water and the type of materials used in the casings and impellers.

In a final effort to resolve the continuing problems associated with these units, the parties involved decided in 1979 to install two stainless steel prototype casings. It appeared, of course, at this time that if this effort failed we would have to install totally new units, complete with motors. We would have a synchronous speed of 900 revolutions per minute. It has been mentioned the results of this research program were successful. They show that the replacement of the existing cast steel casings with stainless steel casings is a final acceptable technical solution to the cavitation problems.

It has previously been mentioned S. 1621 would provide the Secretary the authority to purchase and secure new pump casings with nonreimbursable funds. The State of Nevada and its project users would cost share in this effort by providing the necessary funding and manpower required to remove, rehabilitate, and install this equipment.

In conclusion, Governor List stresses it is essential that the water needs of the southern Nevada area do not continue to be jeopardized by the impending failure of these existing pumping units. Further, he indicated that this matter is of vital importance to the residents of southern Nevada and urgently requested affirmative action on S. 1621 at the earliest possible date.

On behalf of Governor List and myself, we express our appreciation for your consideration of this extremely important matter.

[The prepared statement of Governor List follows:]

STATEMENT

before

SUBCOMMITTEE ON WATER AND POWER
COMMITTEE ON ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

by

HONORABLE ROBERT LIST
GOVERNOR OF NEVADA

presented by

DUANE R. SUDWEEKS, DIRECTOR
COLORADO RIVER COMMISSION OF NEVADA

April 22, 1982

****

Mr. Chairman, Members of the Committee, I am pleased to be able to provide testimony in support of S. 1621 which has been recently introduced by Senators Cannon and Laxalt of the great State of Nevada. This Bill provides for the replacement of pump casings for 12 of the 14 horizontal centrifugal pumping units in pumping plants 1A and 2A, Southern Nevada Water Project, Stage I, Nevada. The two remaining casings have been replaced previously on an experimental basis. These 14 units pump treated, potable water from a forebay adjacent to the State-constructed Alfred Merritt Smith Water Treatment Facility near the shore of Lake Mead through project water conveyance pipelines to terminal facilities which in turn feed the water distribution systems of the Las Vegas Valley Water District, the City of North Las Vegas, the City of Henderson, and Nellis Air Force Base, a tactical air command facility. The City of Boulder City also receives potable water through other project facilities.

The operation of these existing pumps and motors has been totally unsatisfactory. Maintenance costs have been extraordinary, and it is clearly evident that the life span of these units will be significantly shorter than normal. Remedial action to correct deficiencies inherent with these pumping units are critical to approximately 400,000 Nevada residents who rely on the Southern Nevada Water Project for their municipal and industrial water supply.

The First Stage of the Southern Nevada Water Project was developed by the Bureau of Reclamation (Bureau) pursuant to the authority of P. L. 89-292. Contract specifications for the existing units in pumping plants 1A and 2A were prepared by the Bureau in 1968. Hitachi America, Ltd. (Hitachi) was the successful low bidder, and subsequently furnished the pumps, motors and appurtenant equipment; the company also supervised the installation. Responsibility for the operation and maintenance of the first stage of this project was transferred to the Colorado River Commission of Nevada (Commission) in November 1971.

In January 1973 a unit was dismantled because an unusual noise had developed. Excessive cavitation damage was found as evidenced by holes that had penetrated completely through the impeller vanes. The cavitation damage was also apparent on the casings at the eye of the impeller (intake side). This particular unit had been operated for only 2100 hours which is equivalent to approximately 90 days of continuous operation.

After disassembly of other units wherein the same wear characteristics were observed, the Commission notified the Bureau of this catastrophic problem. The Bureau communicated with Hitachi and outlined, in detail, the extensive cavitation problems which existed in these relatively new units. The one year warranty period had expired and Hitachi did not admit legal responsibility under the contract. Hitachi did, however, agree to reshape the leading edges of the vanes in all 14 impellers, and the company contributed $18,500 as its part of the costs. The Project water users assumed the responsibility of the remaining costs including the cost of dismantling and reassembling the units. After testing, it was apparent that the cavitation problem had not been solved.

In May 1973 an agreement was reached by the Bureau and Hitachi wherein the supplier proceeded with laboratory model testing preparatory to fabrication of two new stainless steel prototype impellers for further testing in pumping plants 1A and 2A. Upon completion of this testing program and evaluation of other modifications, a further agreement between the Bureau and Hitachi provided that Hitachi would manufacture 14 new stainless steel impellers for installation in the Southern Nevada Water Project pumping plants. This agreement also provided that the Bureau would use Southern Nevada Water Project funding, which the State of Nevada and its project water users would have to repay over the life of the project, to pay the approximately $150,000 cost to install a welded stainless steel inlay on the casings at the approach of the eye of the impeller (intake side).

In late 1974 installation of the newly designed impellers in the existing 14 units commenced. Operational tests on two of the units with these new impellers gave a positive indication that the pumps may now provide a more satisfactory service life. Thus, installation of all of the new impellers was completed early in 1975.

In October 1977, observation of one of the units indicated cavitation damage was still occurring on the newly designed impellers as well as the casings adjacent to the stainless steel inlay. This resulted in further discussions between the Bureau and Hitachi. Additional remedial actions, including coating the interior of the casings, were tried. All of these additional efforts were unsuccessful.

In October 1978, representatives of the State of Nevada met with the Bureau to ascertain whether a long-term solution could be provided for this continuing problem. State representatives emphasized that the continuing pumping unit problems were resulting in extremely high maintenance expenditures far in excess of what the Southern Nevada Project water users could have reasonably anticipated. It was generally agreed that all reasonable courses of action had been pursued by the parties involved, namely the Bureau, Hitachi, the State of Nevada and its operating agent the Las Vegas Valley Water District. It was clearly evident that (1) these units would require far more than usual maintenance and (2) they would have a significantly shorter life span than normal.

Costs expended on this effort from its inception in January 1973 approximate $1,000,000 by Hitachi, $300,000 by the State of Nevada and its Project water users and $150,000 by the Bureau. The Bureau costs must be repaid by the Project water users through the State of Nevada, with interest, pursuant to the repayment contract. The combined expenses of remedial measures far exceeds Hitachi's original bid of $920,300 for furnishing the pumps, motors, appurtenant equipment, and supervision of the installation.

Model tests and impeller redesign since the inherent problems were discovered in 1973 indicate that many factors were involved, i.e., the synchronous speed of the units (1200 revolutions per minute), the magnitude of suction and discharge head, the corrosive effects of the water and the type of materials used in the casings and impellers.

In a final effort to resolve the continuing problems associated with these units, the parties involved decided in July 1979 to install two stainless steel prototype casings. If this approach failed, there appeared to be no alternative left but to replace all of the pumps and motors with units having a synchronous speed of 900 revolutions per minute. The results of this research program completed in 1980 are conclusive. They show that the replacement of the existing cast steel casings with stainless steel casings is a final acceptable technical solution to the cavitation problems.

S. 1621 would authorize the Secretary of Interior to procure the pump casings and appurtenant equipment with non-reimbursable funds. The State of Nevada and its Project water users would cost share in this effort by providing the necessary funding and manpower required to remove, rehabilitate and install this equipment.

It is essential that the water needs of the Southern Nevada area do not continue to be jeopardized by the impending failure of these existing pumping units. Given the vital importance of this matter to the residents of Southern Nevada, we urgently request affirmative action on S. 1621 at the earliest possible date.

Mr. Chairman, I appreciate the opportunity to present this statement. Thank you for your consideration of this extremely important matter.

82-5 RESOLUTION

COLORADO RIVER COMMISSION OF NEVADA

WHEREAS, pursuant to P.L. 89-292 construction of the first stage facilities of the Southern Nevada Water Project was completed by the United States Bureau of Reclamation (Bureau) in November of 1971; and

WHEREAS, the Bureau, under Solicitation No. DS-6637, furnished and installed the pumps, motors, and appurtenant equipment for the 50 cfs, 2500 horsepower pumping units located in Pumping Plants 1A and 2A; and

WHEREAS, in January 1973, a unit was dismantled because of the development of abnormal operational noises after performing for approximately 2,100 hours; and

WHEREAS, excessive pump damage was discovered due to cavitation; and

WHEREAS, the one-year warranty with the contractor, Hitachi America, Ltd., had expired; and

WHEREAS, subsequent maintenance and rehabilitation expenses have been excessive, costing Hitachi approximately $1,000,000, the water users $300,000, and the Bureau $150,000; and

WHEREAS, testing of the pumping units has resulted in the conclusion that stainless steel pump casings are required to replace the existing cast iron casings as a reasonable and most economical solution to the problem; and

WHEREAS, Senate Bill S. 1621 and House Bill H.R. 5569 have been introduced in the United States Congress which will authorize non-reimbursable funds for the Secretary of Interior to purchase the stainless steel casings; and

WHEREAS, the water users have agreed to absorb the cost of the installation of the stainless steel casings and perform the necessary rehabilitation work; and

NOW, THEREFORE, BE IT RESOLVED, the Colorado River Commission of Nevada supports the provisions of Senate Bill S.1621 and House Bill H.R. 5569 and urges their prompt consideration and enactment; and

BE IT FURTHER RESOLVED, a copy of this Resolution be sent to Governor Robert List, Senator Howard W. Cannon, Senator Paul Laxalt, Congressman James D. Santini, United States Secretary of Interior James G. Watt, and Senator James A. McClure (Chairman, Senate Committee on Energy and Natural Resources); Congressman Morris K. Udall (Chairman, House Committee on Interior and Insular Affairs); Senator Frank H. Murkowski (Chairman, Senate Subcommittee on Water and Power); Congressman Abraham Kazen, Jr. (Chairman, House Subcommittee on Water and Power Resources); and Commissioner Robert N. Broadbent, (U. S. Bureau of Reclamation).

Adopted and passed at a regular meeting of the Colorado River Commission of Nevada on April 14, 1982.

JACK LEHMAN, Chairman

Senator **Murkowski**. Thank you very much, and we certainly thank Governor List for having this testimony presented to the committee.

Since the pump casings themselves were approved by the Federal Government as part of the design and installed, it's obviously your contention that this is not normal maintenance but is in fact a design failure or design criteria was lacking and, therefore, it should be an obligation to the Federal Government?

Mr. **Sudweeks**. That's the position we take.

Senator **Murkowski**. You do not feel we are establishing any kind of a precedent here in this regard, that we would open a door up for the question of what constitutes maintenance, vis-a-vis what is the capital cost as part of the original design criteria?

Mr. **Sudweeks**. No; we do not think you would be opening the door. This is a very unique case. Very complex. It's a problem that has been exhibited shortly after the units were installed.

Senator **Murkowski**. Being an administrator of the Colorado River Commission while in your own area it might not be applicable, do you have any feeling with regard to whether or not the Federal Government might pass title to some of the dams and whether it would be beneficial to districts if they could take advantage of it? Or if it would have a negative effect, or have you given it any thought?

Mr. **Sudweeks**. I obviously can't speak for Governor List, but my own personal opinion, I think in some instances there may be some advantage to doing that. I think Mr. Paff had detailed at least the thought process that is exhibited on the southern Nevada water project. But other dams, I'm sure you would have to address each one individually.

Senator **Murkowski**. You have an association, I assume, where you collectively discuss policy matters and so forth?

Mr. **Sudweeks**. Our agency is actually governed by a Commission. It would be set policy for our operations.

Senator **Murkowski**. I thank you, Mr. Sudweeks. We hope to get the bill up to the full committee by next week, and I appreciate again your testimony and we wish to thank you.

Mr. **Sudweeks**. Thank you very much, Mr. Chairman.

Senator **Murkowski**. It gives me a great deal of pleasure to call on one of my colleagues, the Honorable Dennis DeConcini, the Senator from Arizona. Senator DeConcini, having had the pleasure of being in your State about 3 weeks ago and making an extensive tour of the Salt River project, I too have become an expert on Salt River and have seen that what water has done for Arizona is second to none. With that I would welcome your testimony and thank you for appearing here this morning.

STATEMENT OF HON. DENNIS DeCONCINI, A U.S. SENATOR FROM THE STATE OF ARIZONA

Senator **DeConcini**. The thanks really go from all of Arizona to you and your staff for taking that personal time that you took to come to Arizona. It is rare indeed that we find members of the body that can justify doing that, and I have a little feeling of what the time crunch is on your schedule, and in light of that I'll be brief this morning.

But I do want to thank you immensely for everyone, the Governor, and the city officials, and the people of Arizona for coming to Arizona and conducting these hearings in Phoenix on the safety of dams bill and for holding hearings today on S. 956 and S. 2177.

As you know, S. 956 would increase the authorization for the Bureau safety of dams program. I'm sure the cosponsors of the legislation, my senior colleague, Senator Barry Goldwater and Senator Wallop of Wyoming, and Senator Cranston of California appreciate as I do the time and effort the committee, the staff, and particularly yourself have put to give attention to this matter.

The purpose of the bill is to allow the Bureau of Reclamation sufficient authorization to complete safety work on reclamation of dams, not only in Arizona, but nationwide. I understand you've had the opportunity to be in Arizona and acquaint yourself with some of the projects throughout our State. They have been made possible through cooperative efforts between the Bureau of Reclamation, State, local and private interests. I would like to briefly reiterate the point I made in the statement which was made on my behalf during your field hearings.

You will agree with me, I'm sure, that a careful development of our land and water resources have been an investment, a very prudent investment, in the future of this country, a cost-benefit ratio does not include the indirect and long term benefits that have accrued in the nature of employment, agricultural production, electrical power, recreation and generally the healthy economy throughout the years.

This has not been accomplished overnight. Construction of the Theodore Roosevelt Dam began in 1905 and was completed in 1911.

Most of the other dams on the Salt River project area were constructed in the 1920's. The process continues today, of course, with the construction of the central Arizona project. This cooperative effort continues solely because it works. It is beneficial to the region and to our entire country. The dams and other projects feature, still stand and still provide invaluable benefits to millions of people.

The thing we have to remember however, is that these dams are 50 to 75 years old. The natural aging process can change and perhaps we can structure and could justify modification. Add to this is new information, years of experience and study, and a much better understanding of the watershed and its potential for flooding.

There will be given to the committee, I'm sure, sufficient amount of expert testimony in technical terms and flows of design and discharge capacity. The knowledge is not all academic. We have had some first-hand observations of the awesome potential of these rivers, the latest lesson coming just 2 years ago. There will also be expert testimony concerning the possible results of the failure of one or more of these structures, but no one who has witnessed the saddest destruction of the Salt River doubts that dam failure is indeed a possibility, or that the results would be anything less than catastrophic.

There are those who might look at the dollar amount and say the same safety cost is far too much, but the dollar that might eventually be appropriated as a result of this act will not begin to match the benefits already realized and the benefits which will continue to accrue through the next 50 years, and certainly no one could suggest that even one life let alone thousands of lives or perhaps billions of dollars of damage to public and private property would not be worth the investment in dam safety.

As to the specific language of the bill, the authorization level we include is based on estimates provided by the Bureau last year and present estimates of safety requirements nationally may have to be revised after today's testimony.

As far as S. 2177, Mr. Chairman, which I also introduced with Senator Goldwater, it allows the inclusion of ordinary fluctuation in costs for the construction of distribution and drainage facilities for non-Indian lands as is already authorized with the basic funding of the central Arizona project under Colorado River Basin Act. Section 309 of the 1968 Authorization Act provides for indexing of certain costs to reflect fluctuation in construction costs. Inadvertently the authorization language for the distribution system failed to repeat the indexing costs. The bill we are introducing will correct that inconsistency.

Again, Mr. Chairman, I commend you for making the effort to become personally acquainted with the very critical problems and needs of this region of the United States, and I want to thank particularly your staff for their interest in all of the water and conservation and reclamation projects that they deal with, and certainly knowledge that they have acquainted themselves with this part of the country.

And thank you for going out to listen to the people who live in the shadows of the reclamation dam in Arizona.

I'll be more than happy to answer any questions.

Senator MURKOWSKI. Thank you very much, Senator DeConcini for your testimony. Again, I want to thank you and the members of your staff and Senator Goldwater's staff who have assisted us on that hearing, and also for the hospitality of your Governor.

I might add it was raining the day that I was there so it was appropriate that we were on a water area.

I have no questions, Senator. Thank you again. We appreciate your time.

Our next witness is Mr. Pat O'Meara, executive vice president, National Water Resources Association.

Mr. O'Meara, we look forward to your presentation. You're not a stranger to the witness table or to this chairman, so with that I am prepared to listen and I assume you're prepared to be heard.

Mr. O'MEARA. Yes sir, Mr. Chairman.

STATEMENT OF J. W. "PAT" O'MEARA, EXECUTIVE VICE PRESIDENT, NATIONAL WATER RESOURCES ASSOCIATION, WASHINGTON, D.C.

Mr. O'MEARA. I'm pleased that Coach Brown has assigned me the cleanup batter's position for this hearing this morning, and because of all the expert witnesses that have been here, I can summarize my statement because of the extensive justification that has been presented for this bill.

Senator MURKOWSKI. You mean we have a brief Irishman before us?

Mr. O'MEARA. It takes me about 20 minutes to say good morning to my mother.

It is my pleasure, Mr. Chairman, to appear before the subcommittee today on behalf of the National Water Resources Association. I appear in support of the four bills under consideration today by the subcommittee.

I want to commend the chairman for his early attention to consider these corrective measures and the work of the staff to prepare for this hearing.

First I would like to comment on S. 956, to increase the authorization of Public Law 95-578 from $100 million to $450 million. It was my pleasure, Mr. Chairman, to represent NWRA at a January 26 hearing to support House Resolution 3208, a House bill to amend the Reclamation Safety of Dams Act. At that hearing the Commissioner of Reclamation, Robert Broadbent, recommended that the authorization be further increased. The House committee responded to his recommendation by adding $550 million to the $100 million presently authorized to be appropriated. Another significant amendment added to the committee-approved bill would allow the Secretary of the Interior to construct replacement dams in lieu of modifying the existing structures when a least cost analysis indicates that replacement is the least expensive and most technically sound method to mitigate a hazardous situation. We would ask the subcommittee to give favorable attention to these amendments of the House Interior and Insular Affairs Committee.

The enactment of S. 956 is necessary in order to provide a vehicle for the expeditious correction of design deficiencies that have been identified as inadequate to safely meet modern flood control criteria.

It is my understanding that in most cases the corrective work that is required is largely in the nature of enlarged spillways rather than in any structural deficiencies in the dams themselves. But whatever the problem, the bottom line is safety.

We are talking about the safety of American lives and property and that, it seems to me, is not a negotiable subject. I realize that the Congress has been asked to exercise unprecedented fiscal restraint. But economy at the expense of safety could easily lead to a catastrophic threat to life and property. I am confident that economy at the expense of safety is not the policy this subcommittee nor one which Congress would endorse. Thus, I call for your full support and rapid enactment of S. 956, including the amendments I referred to earlier which have been adopted by the House committee.

The thrust of the dam safety program is to correct inadequacies in original design. The operating entities had nothing to do with the original design and should not be expected to pay for correcting deficiencies that now have been identified.

Mr. Chairman, NWRA supports sound Federal policies on cost sharing by State and local entities for the reimbursable portion of water resource projects, but we do not believe that the Congress should reverse the precedent it has established and now require reimbursement for safety measures that are now deemed necessary.

Requiring cost sharing of dam safety modifications could very well have the adverse impact of delaying, perhaps indefinitely, the implementation of this vital program, and, thereby, defeating the very purpose for which the program was devised.

S. 1573, introduced by Senator Hatfield of Oregon, is necessary legislation to remove a privately built and maintained reservoir in Oregon to its traditional and factual status as nonnavigable waters of the United States. It is unfortunate that the Congress must spend time and energy on this type of legislation, but it must be done to remove Lake Oswego from a morass of bureaucratic redtape in which the Congress never intended it be involved.

I simply say to the committee that Lake Oswego Corp. has endured enough harrassment. We ask that you put an end to this unwarranted Federal intrusion that now threatens the effective productive private management of Lake Oswego. Please move with all dispatch to enact S. 1573.

NWRA supports S. 1621, and I certainly can limit my comments on this bill because of the expert testimony presented by the two preceding witnesses, Mr. Don Paff and Mr. Duane Sudweeks. We believe the legislation is consistent with the interests of the United States and the water users it affects.

And finally, we would urge the enactment of S. 2177 to authorize cost indexing for the distribution and drainage systems authorized by the Colorado River Basin Project Act. There is ample precedent for this action to accomodate the continuing upward inflationary spiral.

We would hope, Mr. Chairman, that this may be the last time we would need to come forward to support this type of legislation. We note with considerable pleasure that the Reagan administration has sharply reduced the inflation rate that has continually escalated project costs over the past several decades. We hope that very favorable development will continue and it will help restore the fiscal integrity of water projects and the financial well being of the Nation.

[The prepared statement of Mr. O'Meara follows:]

STATEMENT OF
J. W. "Pat" O'Meara
Executive Vice President
National Water Resources Association
before the
Subcommittee on Water and Power
of the
Committee on Energy and Natural Resources
United States Senate
Washington, D.C.

April 22, 1982

Mr. Chairman and Members of the Subcommittee:

It is my pleasure to appear before the Subcommittee today on behalf of the National Water Resources Association. NWRA is a confederation of the State water user associations of the 17 Reclamation States and Hawaii. This year, 1982, we celebrate our Golden Jubilee. Over that 50 year period, NWRA has established a long record of vigorously advocating the development and wise use of water resources, including our support of many worthwhile Federal Reclamation projects.

I appear today in support of the four bills under consideration today by the Subcommittee. These bills might be classified as operation and maintenance legislation; by that, I mean, to repair and update unforeseen contingencies that have arisen since the original legislation was enacted. I want to commend the Chairman for his early attention to consider these corrective measures.

First, I would like to comment on S. 956, a bill by Sens. DeConcini, Goldwater, and Wallop to increase the authorization of P.L. 95-578 from $100 million to $450 million. It was my pleasure to represent NWRA at a January 26 hearing to support H.R. 3208 by Rep. Udall (Arizona) to amend the Reclamation Safety of Dams Act of 1978.

At that hearing, the Commissioner of Reclamation, Robert Broadbent, recommended that the authorization be increased. The House Committee responded to his recommendation by adding $550 million to the $100 million presently authorized to be appropriated. Another significant amendment added to the Committee-approved bill would allow the Secretary of the Interior to construct replacement dams in lieu of modifying existing structures when a "least cost analysis" indicates that replacement is the least expensive and most technically sound method to mitigate a hazardous situation. We would ask this Subcommittee to give favorable attention to these amendments of the House Interior and Insular Affairs Committee.

The enactment of S. 956 is necessary in order to provide a vehicle for the expeditious correction of design deficiencies that have been identified as inadequate to safely meet modern flood control criteria.

It is a credit to the Bureau of Reclamation that of the nearly 350 dams the agency designed and constructed over four score years, only 27 have been designated inadequate to safely meet current flood control criteria. Hindsight is always 20-20. These dams pose a problem today and require rehabilitation or replacement because the science of flood hydrology is far better developed today than when the subject dams were designed and built. It is my understanding that, in most cases, the corrective work that is required is largely in the nature of enlarged spillways rather than any possible structural deficiencies in the dams themselves. Whatever the problem, the bottom line is safety.

We are talking about the safety of American lives and property. That, it seems to me, is not a negotiable subject. I realize that the

Congress has been asked to exercise unprecedented fiscal restraint. But, economy at the expense of safety could easily lead to a catastrophic threat to life and property. I am confident that economy at the expense of safety is not the policy this Subcommittee nor one which Congress would endorse. Thus, I call for your full support and rapid enactment of S. 956, including the amendments adopted by the House Committee.

Mr. Chairman, many of the Reclamation States are taking steps to substantially participate in the financing of future Reclamation projects. Reasonable cost sharing is a program that can help advance water resource development programs at a time when it is necessary to tighten the Federal budget belt. I would like to call attention to the fact that expenditures under the Dam Safety Program have been non-reimbursable, and there is considerable justification that it should continue to be non-reimbursable.

The thrust of the Dam Safety Program is to correct inadequacies in original design. The operating entities had nothing to do with the original design and should not be expected to pay for correcting deficiencies that now have been identified.

NWRA supports sound Federal policies on cost sharing by State and local entities for the reimbursable portion of water resource projects, but we do not believe, in all consistency, that the Congress should reverse the precedent it has established and now require reimbursement for safety measures that now are deemed necessary. Requiring cost sharing of dam safety modifications could very well have the adverse impact of delaying, perhaps indefinitely, the implementation of this vital program, and, thereby, defeating the very purpose for which the program was devised. We cannot gamble on delays; we need the expedited means of correcting the identified dam deficiencies as provided in S. 956. We urge its early enactment.

Attached to my statement is a copy of the NWRA resolution on Dam Safety that was adopted at our national convention in Albuquerque, New Mexico, in November of 1981.

S. 1573, introduced by Sen. Hatfield (Oregon), is necessary legislation to remove a privately built and maintained reservoir in Oregon to its traditional and factual status as non-navigable waters of the United States. It is unfortunate that the Congress must spend time and energy on this type of legislation, but it must be done to remove Lake Oswego from a morass of bureaucratic red tape in which the Congress never intended it be involved. The present law exempts Lake Oswego from the navigability provision of the Rivers and Harbors Act of 1899, but now the collective wisdom of the Federal Energy Regulatory Commission has determined it has authority over this private project under the provisions of the Federal Power Act.

I believe the basic problem is that the Congress has authorized too many lawyers at FERC and, in order to keep them busy, the Commission has ordered the Lake Oswego Corporation to file for a Federal Power License for the operation of this little dam at the foot of this land-locked lake. The power generating capacity at this dam is less than one megawatt, yet FERC is demanding it be licensed. The ultimate cost of compliance with FERC regulations could easily be millions of dollars of unnecessary expenditures.

I simply say to the Committee, the Lake Oswego Corporation has endured enough bureaucratic harassment. We ask that you put an end to this unwarranted involvement that now threatens the effective and productive management of Lake Oswego. Please move with all dispatch to enact S. 1573.

NWRA supports S. 1621. The association believes this legislation is consistent with both the interest of the United States and the water users it affects.

Finally, we wish to urge the enactment of S. 2177 by Sens. DeConcini and Goldwater (Arizona) to authorize cost indexing for the distribution and drainage systems authorized by the Colorado River Basin Project Act. There is ample precedence for this action to accommodate the continuing upward inflationary spiral. We would hope, Mr. Chairman, that this may be the last time we will need to come forward to support this type of legislation.

We note, with considerable pleasure, that the Reagan Administration has sharply reduced the inflation rate that has continually escalated project costs over the past several decades. We hope that very favorable development will continue as it will help restore the fiscal integrity of water projects and the financial well being of the Nation.

Enclosure

RESOLUTION 81-8
FEDERAL RECLAMATION—DAM SAFETY PROGRAM

To encourage and support the full and timely implementation of the Federal Reclamation Dam Safety Act (Public Law 95-578) and the appropriation of such federal funding as may be necessary for these programs.

POSITION STATEMENT SUPPORTIVE OF
RESOLUTION 81-8
FEDERAL RECLAMATION DAM SAFETY PROGRAM

The United States Bureau of Reclamation has designed, constructed, maintained, and operated more than 240 reservoirs impounded by some 310 dams and dikes, and has transferred the responsibility for operation and maintenance of 110 such reservoirs and facilities to respective water user organizations.

The United States Bureau of Reclamation has developed and vigorously implemented a Review of Maintenance Program to insure the the proper operation and maintenance of the facilities. In 1965, an additional program was initiated to evaluate original dam designs, including modern criteria for flood analysis and seismicity, which resulted in the identification of 27 dams requiring structural modification to safely withstand the inflow design flood and/or the maximum credible earthquake.

The Ninety-fifth Congress, in recognition of the need to complete required structural modifications on the remaining dams and those subsequently so identified, enacted the Federal Reclamation Dam Safety Act (Public Law 95-578) which, among other things: (1) authorizes $100 million for the construction, restoration, operation, and maintenance of new or modified features at existing Federal Reclamation Dams for safety of dams purposes; and (2) directs the Secretary of Interior to report to Congress the scope and nature of corrective actions required, alternative solutions to structural modifications, and environmental impacts, if any, resulting from the implementation of the recommended plan of modification.

Senator **Murkowski**. Thank you very much. I appreciate your recognition of the efforts of the administration and as I pointed out earlier, the fact that the previous Secretary of the Interior was proposing stopping the central Arizona project, I think we have had a mutual turnaround in that regard and others.

I have no specific questions with regard to your testimony in support of this pending legislation. I would like to refer to a matter that I have discussed with some of the other witnesses today. I don't think it's appropriate that you respond in any detail, but I would like to suggest your association at least give the matter some study and that is the proposal with regard to whether or not the Federal Government should pass title to some of its dams and whether that would have a beneficial effect on the principle of leverage or some other financial benefits to various associations that do have the expertise and capability and the need for additional asset base, recognizing that it really doesn't do the Federal Government any good to necessarily maintain that title.

And if your association, which is certainly a knowledgeable group of people around the country can address the pros and cons of this I think legislators would appreciate you giving some consideration to that as perhaps a subject of discussion.

Mr. **O'Meara**. Yes, Mr. Chairman. I read your comments when you initially proposed this during your visit to Arizona and I have drafted a memorandum to the chairman of our resolutions committee. In that our association has never addressed this type of development, it certainly will be addressed and considered by our membership and we will get back to you on what our views are as soon as they are developed.

Senator **Murkowski**. We would appreciate that. It's not our intent to broaden bureaucracy, but simply to extend under the federalism concept, what may offer some benefits, and you're the best ones to tell us. So again, I want to thank you.

I too want to recognize coach Brown for the significant impact that he has had on this hearing. I don't know whether we've convinced him of the merits pro and con of giving away Government property. I think there may be some job security associated with it, but we will proceed with that at a later date.

I have no further business to come before the hearing other than to indicate to those of you that Senator Goldwater will have a statement for the record and I'm sure that Senator Cannon will have a statement for the record, which of course we will accommodate.

I want to thank all of the witnesses that appeared today. I think the testimony will be of great assistance in moving this legislation along, and with that, I wish you a good day and the hearing is adjourned.

[Whereupon, at 11:55 a.m., the hearing was adjourned.]

APPENDIXES

APPENDIX I

Historical Material Submitted by Carl Halvorsen and Jack Kennedy, Lake Oswego Corp.

STATEMENT OF THE LAKE OSWEGO CORPORATION REGARDING S1573

Senate Bill S1573 concerns a small, private lake known as Lake Oswego and which is located in the City of Lake Oswego in the State of Oregon. The lake is owned by the Lake Oswego Corporation, a homeowners association of some 9,000 family members who share in the ownership of the corporation through deeded rights appurtenant to residential property in the Lake Oswego area.

This Bill has been introduced by Senator Mark O. Hatfield of Oregon and has been referred to the Water and Power Subcommittee for consideration. The text of the proposed legislation is brief and provides as follows:

> That Section 162 of the Water Resource Development Act of 1976 is amended by inserting the following at the end thereof: "Lake Oswego shall also be treated as non-navigable for the purposes of Part I of the Act of June 10, 1920 (41 Stat. 1063 and following; 16 U.S.C. ch. 12, subchapter I).".

As the text of the bill indicates, S1573 will amend the Water Resource Development Act of 1976. The 1976 Act declared Lake Oswego to be a non-navigable water for purposes of the Rivers and Harbors Act of 1899, the enabling act which provides the basis for navigability jurisdiction by various government agencies. The Federal Energy Regulatory Commission (FERC) has questioned the scope of the 1976 legislation and has refused to accept limitations regarding government regulation of Lake Oswego. As a result, the Commission has attempted to assert jurisdiction over Lake Oswego on the basis of historical navigability. The purpose of this bill is to lay to rest questions concerning federal regulation of Lake Oswego based upon disputed alleged historical navigability of the lake.

The question of the navigability of Lake Oswego was first raised by the U.S. Army Corps of Engineers in 1972. Under a program intended to expand the Corps "navigable water" jurisdiction, the Corps of Engineers made an initial determination in 1972 that the lake was historically navigable. Upon further investigation, however, the Corps determined that the historical evidence did not support their original conclusions nor did the character and nature of Lake Oswego warrant any intervention or regulation by the Corps of Engineers.

As a result of a field survey, the District Engineer and Division Engineer of the Corps of Engineers acted to rescind the initial determination of historical navigability. The General Counsel's office of the Chief of Engineers in Washington, D.C. found no precedent for declassification and, as a result, the agency was unable to rectify the matter internally. It was in response to the U.S. Army Corps of Engineers' actions that Section 162 of the Water Resource Development Act of 1976 was enacted. The act was intended to clarify the status of Lake Oswego as a private, non-navigable waterway. The text of the 1976 Act is as follows:

> "For the purposes of section 10 of the Act of March 3, 1899 (30 Stat. 1151) (33 U.S.C. 401) the following bodies of water are declared non-navigable: Lake Oswego, Oregon; Lake Coeurd'A Lane, Idaho; and Lake George, New York. (Oct. 22, 1976, P.L. 94-587, §162, 90 Stat. 2934.) 33 U.S.C. §59m.

Until 1979, it was believed that the 1976 legislation resolved all questions concerning the historical navigability of Lake Oswego. On May 3, 1979, however, the Federal Power Commission, now the Federal Energy Regulatory Commission (FERC), issued an order in which it purported to determine that Lake Oswego was navigable and therefore subject to the jurisdiction of the Commission. In its order, the Commission required Lake Oswego to file an application for a federal power license for the small dam and single hydroelectric generator operated by the Lake Oswego Corporation in connection with the lake. This proposed legislation is in response to the Commission's action.

As in the case of the Army Corps of Engineers, the Lake Oswego Corporation is again faced with an agency's unwarranted attempt to expand its jurisdiction. The FERC first approached Lake Oswego Corporation by letter in 1976 inquiring as to the amount of power generated by the small power facility in order to determine whether power generated entered interstate commerce. The Lake Oswego Corporation established and the Commission did not contest the fact that the insignificant amount of power generated was used locally and that interstate commerce was not involved. For some unexplained reason and despite the minimal power generated, the Commission then challenged the historic navigability of Lake Oswego in an attempt to require the Lake Oswego Corporation to obtain a federal power license.

The Lake Oswego Corporation informed the Commission of the 1976 Legislation concerning Lake Oswego's navigability. The FERC, however, has taken the position that the Water Resource Development Act of 1976 does not preclude the Commission from undertaking a separate determination of historical navigability. The Lake Oswego Corporation does not agree and there are pending proceedings before the FERC and before the United States Court of Appeals for the Ninth Circuit in which the Lake Oswego Corporation has challenged the agency's jurisdiction. These proceedings are exceedingly time consuming and expensive and are completely unnecessary in view of the clear mandate of the 1976 legislation concerning Lake Oswego. The proposed legislation will clarify the status of Lake Oswego and eliminate these proceedings.

BACKGROUND OF LAKE OSWEGO, OREGON

In the written materials submitted to the subcommittee, the Lake Oswego Corporation describes in detail the physical characteristics of Lake Oswego as well as the historical background of the lake. Included with the materials are maps and photographs of the area to familiarize the committee members with the size and character of the lake. It is important for the committee to be familiar with the character of Lake Oswego in order to fully appreciate the need for the proposed legislation.

Lake Oswego is a small inland fresh-water lake situated in Northwest Oregon. The lake is within the city limits of the City of Lake Oswego, which is a small community located a few miles south of Portland, Oregon. The lake was originally known as Sucker Lake and was formed by percolating ground waters and seasonal run-offs from the surrounding hills. The lake had no inlets and the only outlet from the lake was a narrow stream known as Sucker Creek which ran from the East end of the lake over a cliff to the Willamette River.

The record of private ownership of the area dates back to 1850 when A. A. Durham, a native of Oswego, New York, settled in the area and obtained ownership of a vast amount of property in the area, including the entire lake and surrounding property.

The lake was first dammed in the 1850's to stabilize lake water levels and to provide a source of water power for a small sawmill located on Sucker Creek. The lake had no inlet at the time and lake levels varied substantially during the year. In the 1870's a narrow inlet canal was dug from the West end of the lake to the Tualatin River, a distance of approximately one and one-half miles. The Tualatin River then became a source of fresh water for the lake.

By the early 1900's, the Oregon Iron and Steel Company obtained ownership of Lake Oswego and the surrounding property, and later rebuilt the small dam at the east end of the lake. A single 500 kilowatt generator was installed to generate power from the seasonal run-off from the lake. The installation of the power generator was required under state law in order to preserve and maintain water rights in the Tualatin River. The generator was hardly self-supporting as the amount of water available from the Tualatin River varied substantially and has never been sufficient to run even the single generator on a full-time basis. Neither the Tualatin River nor Lake Oswego offers a substantial source of hydroelectric power.

In 1942, the Oregon Iron and Steel Company transferred the bed of the lake and surrounding rim property of Lake Oswego to the Lake Oswego Corporation. The corporation was incorporated at that time in order to take title to the bed of the lake and rim property. The lake, canal, and related power facilities have for the most part remained unchanged over the past sixty years. During that time, however, the City of Lake Oswego has grown and the area surrounding the lake is now extensively developed, including the City of Lake Oswego itself and residential development centering around the lake. The Commission's actions have potentially far-reaching effects for the entire area and threaten the value of hundreds of millions of dollars in Lake area property.

Lake Oswego is a vital asset to the City of Lake Oswego. To assure its continued life, the Lake Oswego Corportion has developed an extensive and comprehensive program of lake management at the primary expense of homeowners. The corporation has been instrumental in preserving the lake amidst rapid urbanization in the surrounding area and has not only preserved but substantially improved water quality. The corporation has developed programs for monitoring and maintaining the quality of the lake environment and has monitored and cooperated with local governments in the many areas affecting the lake, including fish and wildlife conservation, sewage and storm drainage, water pollution and flood control, water safety regulation, and many other areas that affect the quality and use of Lake Oswego.

The system of lake management for the benefit of the area residents has been painstakingly developed over the years. The quality of the lake and surrounding area is evidence of the success of Lake Oswego's efforts.

It is important to note that the Lake Oswego Corporation does not operate without significant regulation. The fact is that the management of Lake Oswego is in complete compliance with every state and local agency that could conceivably have or wish to have jurisdiction concerning the lake. A few of the agencies involved are:

1. The Oregon State Department of Environmental Quality operated under guidelines of the Federal Environmental Protectional Agency.

2. The Oregon State Engineer and Oregon State Water Resources Board, as well as the Federal Bureau of Reclamation, with respect to water and flood control.

3. The Oregon State Marine Board with respect to boat licensing, fees and enforcement by the Lake Oswego Corporation of all state and federal marine laws. It should be noted that the Lake Corporation has adopted special water safety rules and regulations for the crowded conditions of the lake and that these rules were submitted to and approved by the State Marine Board

after public hearings at the request of the Lake Oswego Corporation.

4. Oregon State Fish and Game Commission with respect to the operation of a fish ladder at the Lake Oswego Corporation's diversion dam in the Tualatin River. The lake and its canals comprise a waterfowl sanctuary and game preserve.

5. Oregon State Health Department with respect to water pollution control and monitoring and maintaining water quality. It should be noted that the Lake Oswego Corporation has undertaken an extensive water quality study and program of water quality improvement, privately funded by assessment of the homeowners. The lake's water quality is maintained at a higher level than the accepted requirements for municipal drinking water prior to chlorination.

Although the Lake Oswego Corporation has worked with area state and federal agencies, in recent years other federal agencies have felt compelled to attempt to assert jurisdiction over Lake Oswego for one reason or another and to interfere with the extensive program of lake management by the Lake Oswego Corporation.

The first instance of potential agency interference occurred in 1972 when the Army Corps of Engineers attempted to assert jurisdiction over the lake in order to control water related construction and use of the lake. It was apparent that there was no basis or need for regulation by the Army Corps of Engineers and as a result, in 1976, Section 162 of the Water Resource Development Act was passed into law declaring Lake Oswego to be a non-navigable water and thereby eliminated the basis for the asserted federal regulation.

The Lake Oswego Corporation believed that the matter had been resolved, however, in 1979, the FERC issued its order proporting to determine that Lake Oswego was navagible and therefore subject to the Commission's jurisdicition. The reason for the Commission's apparent interest in Lake Oswego relates to the fact that the Lake Oswego Corporation continues to generate power from the single generator operated in connection with the small dam on the lake; a generator which operates on a part-time basis due to limitations in the water supply.

The Commission's attempt to assert jurisdiction over Lake Oswego cannot withstand careful scrutiny. Foremost, is the tremendous expense incurred by the Lake Oswego Corporation and its homeowner shareholders in completing an application for a federal power license and in complying with reporting requirements and attendant regulations concerning management of the lake. To give the subcommittee an idea of the cost involved, the Lake Oswego Corporation has already expended over $22,000 in connection with proceedings brought by the FERC. The total income to the Lake Oswego Corporation from the sale of power in recent years is as follows:

1978	$13,406	(1969 megawatt hours)
1979	$14,348	(1875 megawatt hours)

To place this amount of power in perspective, 2000 megawatt hours of power is enough power to supply electricity to approximately 100-125 homes a year.

In addition to the cost and expense involved in the immediate application, there is the prospect of the agency's interference with the established system of lake management developed by the Lake Oswego Corporation over the last 40 years.

Pursuant to the FERC's rules and regulations attendant to licensing, the Commission has the power to regulate all facets of lake use and development. The regulation would ential a comprehensive set of regulatory requirements that would overlay every aspect of use and management of Lake Oswego.

It might be a different matter if Lake Oswego was a source of significant water power. This is not the case, however, as Lake Oswego is a source of an insignificant amount of power and is a well maintained and managed private facility. The proposed regulation by the FERC not only interferes with private property interests, but threatens the finely tuned system of lake management that has been developed by the Lake Oswego Corporation in conjunction with all local governments in preserving the lake for the benefit of the general area.

This subcommittee should be aware that the maintenance and preservation of Lake Oswego is paid for by assessments of lake area residents. The burden of the increased cost and expense will fall on these homeowners.

SUMMARY

In summary, there is no need nor any purpose for intervention or regulation by the FERC; there is no legal basis for the Commission's assertion of jurisdiction; and finally, in these severe economic times there is no justification for this type of regulation that is a waste of money and resources of the community and the government. Passage of this legislation would remove any doubt as to the Commission's jurisdiction and would bring this matter to an end.

We have not burdened the subcommittee by suggesting that the thousands of home owners express their sentiments to the committee by written testimony. If the subcommittee feels it would be helpful, we would be happy to relay that message to the homeowners. In the meantime, on behalf of those people in the Lake Oswego area who would be adversely affected without this legislation, we ask the subcommittee to approve this legislation and to expedite its passage.

In closing, we call the attention of the subcommittee to the tremendous societal costs of this type of over-regulation. The FERC is not asserting jurisdiction to correct a deficiency that is jeopardizing hydroelectric power. It is attempting to assert jurisdiction over a single small generator and related facilities that have been successfully and efficiently operated for over 70 years. The Lake Oswego Corporation has maximized power production consistent with preservation of the lake environment and will continue to do so in the future. There is no reason to impose the substantial costs and interference associated with government regulation in this setting. Our citizen's and our government's resources are too valuable to be wasted in this manner.

HISTORY OF LAKE OSWEGO

In 1976, the City of Lake Oswego undertook a comprehensive physical resources inventory through which the community conducted a thorough study of all facets of the Lake Oswego area. Among the areas of inquiry of this comprehensive study were the history of Lake Oswego and a review of the city's water resources. The following are relevant portions of the physical resources inventory, which present a summary of the history of Lake Oswego and the relationship between the city and the Lake.

LAKE OSWEGO PHYSICAL RESOURCES INVENTORY

MARCH
1976

CITY COUNCIL

Wallace D. Graham, Mayor

William W. Cook
H. Curtis Finch
Matthew M. Finnigan
Beverly J. Henderson
Corky S. Kirkpatrick
Duane E. Lafferty

PLANNING COMMISSION

Joseph W. Glaze, Chairman

William H. Gerber
Michael D. Montgomery
Richard W. Norman
Steven T. Schenk
Peggy Smith
Ardis Stevenson

CITY MANAGER

Donald B. Eppley

PLANNING DEPARTMENT

Patrick Barnum, Planning Director
Dick Hutchison
Joyce Kazala
Bob Yakas

CITY OF LAKE OSWEGO

March 25, 1976

To the Members of the City Council and
The Planning Commission of Lake Oswego

It is a great privilege for me to have the opportunity to write this letter of transmittal for the following report on the Physical Resources Inventory. As you know, a gratifying number of Lake Oswego citizens have spent untold volunteer hours in gathering information which has been compiled for this report.

I truly believe the Herculean effort on the part of many citizens of our community and the fine leadership displayed by the City's Community Development Director, Michael O'Brien, together with the capable assistance of Mrs. Jeanne Robinette and Mrs. Jean Siddall, have produced a citizen involvement process which has, to my knowledge, never been accomplished in this community before.

In addition, I feel that this process is an outstanding model for other cities across the nation. I believe that the inventory is a fine accomplishment and that the people involved developed the data contained herein with an outstanding degree of thoroughness in an attempt to provide as much attention to detail as possible. If the decision-making process couples this study with engineering studies already complete, a significant piece of the comprehensive planning puzzle will fall in place.

I wish to give special recognition to Mrs. Robinette whose dedication in compiling the myriad of information into this report form was truly outstanding.

I would also wish to offer a special thanks to all of the citizens and City staff members who spent many unpaid hours in developing the information that follows.

Respectfully submitted,

Donald B. Eppley

Donald B. Eppley
City Manager

DBE:k

348 NORTH STATE STREET / POST OFFICE BOX 369 / LAKE OSWEGO, OREGON 97034 / (503) 636-3601

LAKE OSWEGO PHYSICAL RESOURCES INVENTORY

LOPRI STEERING COMMITTEE

Ken Becker
Virginia Campbell
Herald Campbell
Ellen Core
Ralph Core
Jeannette Egger
Judy Fagg
Jan Fuchs
Bob Fuchs
Kathryn Gray
Sandra Jackson
Tom Jackson
Margie Largent
Don Potter
Ken Weaver
Lloyd Wilcox

SPECIAL EFFORTS

Jean Siddall
Field Survey Coordinator

Editors:

Virginia Campbell
Ellen Core
Jan Fuchs

COMMUNITY DEVELOPMENT DIRECTOR

Michael O'Brien

PROJECT DIRECTOR

Jeanne Robinette

TYPING - EDITING

Cheryl Saarinen

Draft 10-9-75
Source Material for City of Lake Oswego physical resources inventory

C. Herald Campbell, member
Citizens Advisory Committee

Lake Oswego is the reservoir for a hydroelectric generating project that includes a concrete, rock and timber diversion dam on the Tualatin River; a flood control and headgate structure and sluiceway diverting Tualatin waters, legally limited for power purposes, into the reservoir; a concrete impounding dam at the eastern or lower end of the reservoir; over 1,200 feet of wood-stave pipe-line from the impoundment dam to the surge tank and powerhouse; and a concrete powerhouse containing a 900 hp Double Francis Turbine direct connected to a Westinghouse 500 K.V.A. generator.

This development of a small lake, originally known as Sucker Lake, into a hydro reservoir primarily supplied from the Tualatin, was facilitated by an enabling act passed by the 1870 Oregon Legislature. It authorized the Tualatin River Navigation and Manufacturing Company, which had been organized the previous year, to take water from the Tualatin River "as might be necessary for purposes of constructing, maintaining and operating a canal and locks, etc., to Sucker Lake and thence to the Willamette River." The elevation difference of over 100 feet between the Tualatin and the Willamette at Sucker Creek apparently was not properly considered and the project never materialized.

Five years earlier, in 1865, the Oregon Iron Company had been formed and the following year built the first iron smelter on the site of the present George Rogers Park.

The Tualatin R.N. and M. Company began construction of the sluiceway from the Tualatin to the head of Sucker Lake in 1871, and this work was completed in 1872. A dam was built in the Tualatin below the opening of the canal to increase water flow in the canal and raise the water level in the river to a practical boating stage. A dam was constructed at the east end of Sucker Lake, raising its elevation 11 feet, and providing a 60 foot head of water to power the machinery at the iron works. It is notable that the plan, if it was ever serious, to develop water commerce from the Willamette to the Tualatin via Sucker Lake, was never realized. Whether a steamer ever navigated the canal, per publicity in the 1873 press, is questionable, inasmuch as the canal, hewn by hand out of solid rock for much of its length, had a minimum width of six feet, and remains virtually unchanged at the original rock cut.(1) The steamboat "Onward" reported in the press to have navigated the 6 foot canal had a recorded width of 17 feet.(2)

It may have been the apparent impracticability of the water traffic scheme, but in any event, the Tualatin R. Navigation and Manufacturing Company in 1873, just one year after completion of the sluiceway (main canal), entered into an agreement with the Oregon Iron Company whereby Tualatin agreed to maintain the dam at its then height and to deliver to the Oregon Iron Company 30 cfs of water for operation of the blast furnace machinery.

The coming of the railroads sounded the death knell for dreams of the river navigation company and on May 1, 1877, Oregon Iron Company acquired the assets of the Tualatin Company at a Sheriff's sale, and Oregon Iron was in turn acquired by Oswego Iron Company.

On April 22, 1882, Oregon Iron & Steel Company was incorporated and on October 21, 1882, acquired Oswego Iron Company. The following year it began construction of a much larger smelter, foundry and pipe foundry on the shore of the Willamette, about one-half mile north of the original iron works.

Notes:
(1) State Engineers "Findings of Fact,etc" dated 12-9-59 pp 98-99
(2) Marine Record of Oregon 1850-1917 Ore.Hist. Soc.

Rising costs of production and falling prices for pig iron forced the company to discontinue production in 1894, although the pipe foundry continued operations into the next century.

In 1895, United States government Engineers, after a survey, declared the Tualatin River unsuited to navigation. But, it was noted, "their report was, in effect, an obituary, for shipping on the Tualatin was already dead."(3)

On July 25, 1906, Oregon Iron and Steel Company, pursuant to the Oregon Laws of 1899, posted notice on the Tualatin River of intention to appropriate 750 cfs (later set by the State Engineer at 57½ cfs) for the purpose of generating electric power. In the fall of that year construction of the present powerhouse was begun, and completed in 1910. In 1919 the surge tank was built in the flow line, and in 1921 the main dam to form the reservoir was rebuilt and its height raised eight feet to provide an effective head of 90 feet.

The enlargement of the lake to its present area of approximately 400 acres by the dam construction of 1921-22 produced a uniquely attractive suburban residential area surrounding the reservoir. In conjunction with its hydroelectric generation project, Oregon Iron and Steel managed the Lake in such fashion as to preserve its worth as a recreational asset that contributed materially to the values of the property in the community, now assessed at about $250,000,000 with a substantial portion based on presence of the reservoir and deeded rights to its recreational use.

On July 27, 1942, Oregon Iron and Steel deeded the lake bed and its rim to the property owners of the area, who had formed a homeowners association called the Lake Oswego Corporation.

Notes:
(3) "Willamette Landings" p. 179 H.M. Corning, Ore. Hist. Soc. 1947, 1973

For almost 35 years now, by voluntary annual assessments on their property, and much volunteer work on maintenance and management, these homeowner stockholders of the Lake Oswego Corporation have assured the maintenance of the lake, preservation of its water quality through environmental controls and chemical treatment, control over the type of waterfront docks, and structures erected for safety and esthetic purposes, and provided water safety and marine police patrols on the lake. It is a remarkable example of voluntary civic action for the common good far beyond any federal or state regulations or even guidelines and at the same time paying taxes rather than spending tax dollars.

The filing of a number of petitions for the determination of Tualatin water rights over a period of years with the office of the State Engineer, culminated in formal hearings in 1957. An order of determination was issued by the State Engineer on December 9, 1959, granting Oregon Iron and Steel Company a right to use 57.5 cubic feet per second of the waters of Tualatin River solely for the generation of electric power at its Oswego plant, under date of priority of July 25, 1906.

On June 30, 1960, the Lake Oswego Corporation purchased from Oregon Iron and Steel Company all the power facilities including the Tualatin diversion dam, flood control dam and headgate, and Oswego canal, main dam, flow line and surge tank, powerhouse, all real estate underlying these facilities and all water rights and power sales contracts. The local homeowners assessed themselves for nearly 10 years to make the annual payments on this purchase.

In addition to some 600 families around the lake shore proper, some 9,000 additional residents back of the lake have deeded property rights for swimming, picknicking and/or boating use of eighteen waterfront parks around the lake. These park properties have been developed by the 18 easement corporations, whose members are the benefited homeowners. Landscaping, installation of sanitary facilities, docks, and the like have been provided through the annual assessments paid by easement members to their respective groups, and they contribute their personal labor for development and maintenance of the easement. Some of the larger facilities employ professional lifeguards during the summer months.

In addition to the eighteen easement properties, a large park, commonly called the Lake Grove Swim, is located at the westerly end of the lake. It was given to the school district by Oregon Iron and Steel in 1927 to be used for school, park and recreational purposes by local residents and their children.

In 1934 Oregon Iron and Steel similarly conveyed a parcel of property at the east end of the lake to the City of Lake Oswego so that all the city's children might have access to the lake for recreational purposes. This is commonly known as the "City Swim."

Because of volunteer efforts, the Lake Oswego Corporation is able to operate with a paid staff of one half-time office secretary, a full-time Lake Warden (who is a deputy sheriff), and a full-time assistant. This paid staff is augmented regularly with part-time paid assistance for reservoir maintenance and police duties. Management is handled by 12 directors, elected by local homeowner stockholders, who serve without compensation and are assisted by volunteer safety and other committees.

In addition to operation and maintenance of the hydroelectric facilities, on the uninterrupted continuation of which the existence of the small reservoir depends for its water right, the Corporation provides the following services:

1. Inspection and licensing of over 1,000 boats for compliance with state and federal safety rules and local noise standards;
2. Training, testing and licensing power boat operators;
3. Developing and enforcing water traffic and safety rules (most of the special safety rules, required by crowded conditions, have been adopted as official state regulations by the Oregon Marine Board);
4. Developing and enforcing strict environmental standards governing water quality, waterfront structures and plantings, and chemical treatment of reservoir water for water contact sports and prevention of eutrophication by excessive algae growth.

Over 1,000 boats licensed for operation on Oswego reservoir make it probably the most intensively used 400-acre body of water in the nation, requiring a two-boat deputized safety patrol.

The enviable water safety record that has been achieved is due to the strict local insistance on the competence of boat operators, enforcement of safety rules beyond state and federal regulations, and most important, the concern of reservoir owner-users that it continue to be a safe and pleasant recreational asset.

A current annual budget of $82,000, plus extensive volunteer work, is required to carry out the Lake Oswego Corporation's functions and make up the power plant operating deficit, which homeowners in the City of Lake Oswego must approve annually to maintain the "lake." In addition, future obligations include an $800,000 contract with the federal government to supply future water to the "lake", an estimated $150,000 to replace the approximately 50-year-old wood pipe to the powerhouse, and rebuilding the flood control dam and headgate at the Tualatin River on the main canal at a cost yet to be determined.

A substantial portion of the approximately $250,000,000 property valuation within the City of Lake Oswego is based on continuing operation and protection of the "lake" in its present state. This includes payment of property taxes on the reservoir bed and rim, including all canals and their rims and the eighteen deeded recreation parks.

LEGISLATIVE HISTORY OF SECTION 162 OF THE WATER RESOURCES DEVELOPMENT ACT OF 1976 (S2315, 1976)

The proposed legislation (S1573) will amend §162 of the Water Resource Development Act of 1976. §162 of the 1976 Act declared Lake Oswego to be non-navigable for purpose of the Rivers and Harbors Act of 1899. The purpose of the 1976 legislation was to clarify the status of Lake Oswego in order to eliminate unwarranted regulation by the U.S. Army Corps of Engineers. Since the pending legislation is intended to clarify the 1976 Act, it is important to consider the background of the Act. Following are portions of the materials submitted on behalf of the Lake Oswego Corporation in support of the 1976 Act. Included are:

A. Senator Mark O. Hatfield's comments (Senate Congressional Record -- S15633-4)

B. A transcript of the statement of LaMar Newkirk, Director of the Lake Oswego Corporation, before the Subcommittee on Water Resources of the Committee on Public Works.

By Mr. HATFIELD:

S. 2315. A bill to return the privately built and maintained reservoir known as Lake Oswego, Oreg., to its traditional status as a nonnavigable water of the United States. Referred to the Committee on Public Works.

Mr. HATFIELD. Mr. President, today I am introducing legislation to restore Lake Oswego, a privately built and maintained reservoir in Oregon, to its traditional status as a nonnavigable water of the United States. I am joined in this endeavor by my distinguished colleague, Senator PACKWOOD, and in the House by the distinguished Representative of Oregon's First District, Mr. AUCOIN.

The Lake Oswego reservoir was constructed in the 1850's for the purpose of providing power to operate a sawmill, and later to operate the Oregon Iron and Steel Company works. A dam was placed at the lower end of Sucker Creek Swamp, near the head of the creek's cascades to the Willamette River, and a sluiceway was dug to divert water from the Tualatin River to Sucker Creek. Upon completion of the sluiceway, commercial navigation was theoretically possible across Sucker Lake, now called Lake Oswego, through the sluiceway, and up the Tualatin River, but the attempts to establish such navigation in the late 1800's failed, despite various publicity campaigns and attempts to raise capital.

In order to prevent flooding along the canal and along the lake, a dike and floodgate was later established at the head of the sluiceway, effectively obviating any further possibility of navigational use. The operation of this intake facility and the use of the water to generate power at the dam has remained basically unchanged since the turn of the century. Today, however, the dam, the diversion facilities, the lake bed, the canals above and below the dam, the powerhouse, and a strip of property around the rim of the lake and canals are owned and operated by the Lake Oswego Corp., essentially a local homeowners association. The corporation bought these private facilities in their entirety from Oregon Iron & Steel Co. in 1942. Shareholders in the corporation include approximately 600 owners of property adjacent to the corporation-owned rim. Two waterfront parks have been deeded to the city of Lake Oswego—population 19,000—and the school district, and 18 other waterfront easements to several associations which represent several thousand owners of nonwaterfront property in the area. The association members and the entire population of the city have access to the lake through easement lots. Operation of the lake, the powerhouse, and the other facilities of the corporation is a losing proposition, and all shareholders are assessed annual charges—averaging $100—for maintaining the operation. This charge also applies to each of the 18 easement entities, whose members pay a family assessment.

This reservoir has no navigable access by commercial craft—or other water craft, for that matter—to or from any "navigable water" of the United States, yet the Corps of Engineers abruptly designated Lake Oswego a "navigable water" in 1973, without field studies, without prior notice to the corporation or to the public in general, and without, apparently, much justification, for the Portland district and the North Pacific Division of the corps have since recommended recission of this action. Unfortunately, the Chief of Engineers has refused to rescind the new classification, leaving no other recourse than this legislation.

Should the new classification be allowed to stand, public access, limited only by the size of access areas the Government may wish to establish by condemnation, could be forced, with the result of loss of operating revenues now gained by controlling all access through corporation ownership of the rim. The Federal Government would have to assume the operation of the reservoir and attendant facilities and assume all costs, which are considerable.

Lake Oswego is a completely locally owned and maintained reservoir in a residential development of long standing. I doubt that the Federal Government actually would wish to acquire the lake bed, rim, dam, diversion structures, and the powerhouse, assume all the liabilities—including a long-term water supply contract—and maintain the water safety patrol and the chemical treatment program, all at a cost of many millions of dollars, not including damages to the value of this residential development. Further, I feel strongly the Government should not do this. The entire operation is run at standards that exceed every Federal guideline, and there is simply no excuse for the kind of Federal intervention the classification of "navigable water" opens up—in fact, requires.

I ask unanimous consent that the text of the bill be printed in the RECORD.

There being no objection, the bill was ordered to be printed in the RECORD, as follows:

S. 2315

***Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That the artificial reservoir known as Lake Oswego, in the State of Oregon, and its canals in the City of Lake Oswego, Oregon, are hereby declared to be nonnavigable waters of the United States within the meaning of the Constitution and laws of the United States.**

LAKE OSWEGO CORPORATION
P.O. Box 203 Lake Oswego, Oregon 97034

August 4, 1976

Page one of Oral Testimony Before the
Subcommittee on Water Resources of the
Committee on Public Works, UNITED STATES SENATE

IN SUPPORT of S. 2315: "A bill to return the privately built and maintained reservoir known as Lake Oswego, Oregon, to its traditional status as a non-navigable water of the United States."

(Introduced by Senator Hatfield and, as noted in his introductory remarks, joined by Senator Packwood and in the House by the Representative of Oregon's 1st District, Mr. AuCoin.)

Presented with corroborative written material including:

- Introductory statement from the Record by Senator Hatfield.
- Letters from State of Oregon and City of Lake Oswego.
- Report of the Secretary of War to the 53d Congress, March 1, 1895, on unnavigability of adjacent waters and recommending against use of federal funds to make navigation possible (data supplied by Corps of Engineers).
- January, 1976, Corps of Engineers public report again stating costs of making potential access water navigable is prohibitive in light of anticipated need.
- Physical details and history of the Lake Oswego reservoir as prepared by the Citizens Advisory Committee of the City of Lake Oswego, Oregon, for its resource survey.
- Report by the U.S. Coast Guard on abandonment of navigation aids on 77 miles of the Willamette river permanently because of maintenance abandonment by the Corps in October, 1975, plus Oregon State Marine Board statement that serious injuries and fatalities to boaters are now possible in these waters adjacent to Lake Oswego (data supplied by U.S.C.G).
- Map showing 20 public and semi-public waterfront parks around the lake, plus main canal.
- Photos showing built-up residential area surrounding the lake, plus main dam and canal.
- Water safety rules of the Lake Oswego Corp. (homeowners association) which are necessarily far stricter than federal regulations.
- Other details, in reports requested by the Corps, on background and operation of the Lake Oswego reservoir, said physical aspects subsequently documented by the Corps in its own field survey following determination of navigability and which subsequently led to rescinding of said determination of navigability by the Oregon District Engineer and North Pacific Division Engineer.
- Report on reduction of sewage treatment requirements for "navigable waters."

Hydro-electric Generation • Police and Water Safety Patrols
Construction and Environmental Permits • Boat and Operator Licenses
Marine Services – Gas and Oil

Lake Corporation Headquarters 700 S.W. McVey Avenue Lake Oswego, Oregon

MR. CHAIRMAN, MEMBERS OF THE COMMITTEE, AND STAFF:

MY NAME IS LAMAR NEWKIRK. I AM A RESIDENT OF THE CITY OF LAKE OSWEGO, OREGON, AND ONE OF A DOZEN NON-PAID DIRECTORS OF THE LAKE OSWEGO CORPORATION. THE CORPORATION IS A HOMEOWNERS ASSOCIATION OF SOME 9,000 FAMILY MEMBERS WHO SHARE IN OWNERSHIP OF THE CORPORATION THROUGH DEEDED RIGHTS TO RESIDENTIAL PROPERTY WITHIN THE CITY OF LAKE OSWEGO.

THIS REMEDIAL LEGISLATION IS TO CORRECT AN UNUSUAL ERROR MADE IN 1972 UNDER TEMPORARY CONDITIONS AND WHICH THE U.S. ARMY CORPS OF ENGINEERS HAS SINCE ATTEMPTED TO CORRECT INTERNALLY BUT HAS BEEN UNABLE TO DO SO. WE HAVE BEEN ADVISED BY HIGHLY RESPONSIBLE COMMANDING OFFICERS IN THE CORPS, FOR WHOM WE HAVE THE GREATEST RESPECT, THAT THE ONLY SOLUTION TO THIS UNUSUAL PROBLEM IS THE REMEDIAL LEGISLATION INTRODUCED BY SENATOR HATFIELD. MY OWN PERSONAL HIGH OPINION OF THE CORPS IS BASED NOT ONLY ON MY YEARS OF WORKING WITH THEM AS A NEWSPAPERMAN, BUT ON THE FACT THAT MY SON IS A GRADUATE OF THE ENGINEERS OFFICER CANDIDATE SCHOOL AT FORT BELVOIR AND A COMBAT VETERAN.

THE RECORD OF PRIVATE OWNERSHIP OF THE AREA DATES TO 1850 WHEN A NATIVE OF OSWEGO, N.Y. FOUNDED THE COMMUNITY, WHICH SURROUNDS THE PRESENT RESERVOIR, AND NAMED IT FOR HIS HOMETOWN. A WATERWHEEL ON THE THEN EXISTING SUCKER CREEK SOON POWERED A SAWMILL, THE CREEK BEING FED BY SPRINGS AND SPORADIC RUNOFF FROM ADJACENT HILLS. IN 1869 THE OREGON LEGISLATURE PASSED AN ENABLING ACT TO ALLOW TAKING OF WATER FROM THE TUALATIN RIVER TO THE SOUTH, AT A MUCH HIGHER ELEVATION, AND BY 1872 THE PRESENT SMALL INTAKE CANAL HAD BEEN DUG APPROXIMATELY 1½ MILES TO THE TUALATIN RIVER AND A DAM HAD BEEN BUILT NEAR THE SAWMILL TO PROVIDE A HEAD OF 60 FEET TO POWER THAT SAWMILL. THE INTAKE CANAL WAS DUG BY HAND THROUGH SOLID ROCK.

THE CANAL NARROWS HAVE ERODED VERY LITTLE OVER THE PAST 104 YEARS AND IT STILL CARRIES WATER TO THE RESERVOIR, FROM WHICH A PIPE 48 INCHES in diameter feeds the turbine of a powerhouse with a small 500 kilowatt generator.

The homeowners association owns a 4-foot-high diversion dam on the Tualatin river, which is necessary to raise the river level to the headgate level at the head of the canal, except during winter flooding in high water years. From that dam, the Tualatin river drops approximately 30 feet over a series of rapids to the nearby Willamette river above Willamette falls. The Lake Oswego reservoir itself also is near the Willamette river but below Willamette falls and thus is approximately 100 feet above the Willamette river. Extensive locks in the past, and now, would be required for navigable access to interstate commerce via either river. Our diversion canal also drops sharply from the Tualatin.

The reservoir covers approximately 385 acres and is used by residents of the community and others for boating, swimming and other water sports. Its rim as well as the bed, main dam at the foot of the lake, powerhouse, canal, Tualatin river diversion dam and headgate dam are owned by our homeowners association. There is no potential access by water, and taxes are paid on this privately owned property by the association, the Lake Oswego Corp. The main dam was rebuilt in 1921 by a predecessor corporation, Oregon Iron & Steel Co., to raise the height of the reservoir 30 feet to its present level, giving a head of 90 feet for the powerhouse. At the time of alleged navigation on the main canal, records indicate it had a 36-foot fall over rapids.

Natural flow through the headgate at the Tualatin river is by law exclusively for hydroelectric purposes, amounting to 57.5 cubic feet per second, under the water right owned by the Lake Oswego Corp. and as litigated and so ruled by the Oregon Supreme Court. As part of an esthetic and environmental program, the local residents through the

Lake Oswego Corp. purchase additional water from the Bureau of Reclamation's Scoggins Project in the Tualatin basin for irrigating the rim and improving water quality in the reservoir. Local residents are obligated under federal contract to pay the federal government from $800,000 to $1 million for this reservoir water over the next 50 years, the exact amount depending on future maintenance and operating costs of which we must pay our percentage for the contracted volume to be taken during the dry months of the year.

The local homeowner stockholders of the Lake Oswego Corp. must assess themselves more than $100,000 annually to make up the operational deficit despite volunteer efforts, which include management. In addition to paying for supplemental water, this includes maintaining a two-boat deputized water safety patrol, buoy system to separate boats and swimmers and maintain speed zones, chemical treatment of the water for purity and algae control, operating the powerhouse at a loss in order to maintain the water right to make the small lake possible, and maintaining strict pollution and environmental controls, including esthetics, far in excess of any current or proposed federal or state regulations.

There is no commercial traffic on the reservoir, none has been attempted in this century, nor is any in prospect.

There is no industrial or municipal effluent entering the reservoir, this being a sewered residential area with homes in all price categories found in the average small city.

Based on the above, which is a very brief summary, it was with complete disbelief that we heard via the Oregon Journal, a Portland newspaper, in March, 1972, that the Corps of Engineers had declared the Lake Oswego reservoir and its main canal as "navigable waters of the United States." The

DETERMINATION WAS MADE BY A CIVILIAN IN THE DISTRICT PERMIT DIVISION AND WE WERE SUBSEQUENTLY TOLD BY THE CORPS THAT SUCH ACTION WAS TAKEN UNDER A 1971-72 PROGRAM TO EXPAND THE CORPS' "NAVIGABLE WATER" JURISDICTION UNDER THE RIVERS AND HARBORS ACT OF 1899 IN ORDER TO ISSUE EFFLUENT PERMITS AND CONTROL WATER POLLUTION, ALTHOUGH THIS ACTION WAS TAKEN ON THE FORMAL BASIS OF ALLEGED PAST COMMERCIAL NAVIGATION ON THE CANAL AND AT THAT TIME MUCH SMALLER RESERVOIR LATE IN THE 19TH CENTURY. THE GENERAL COUNSEL'S OFFICE OF THE CORPS, IN AN INTERVIEW PUBLISHED IN THE OREGONIAN OCTOBER 26, 1975, CONFIRMED THAT THE ACTION WAS TO BRING THE RESERVOIR AND CANAL UNDER FEDERAL WATER POLLUTION STANDARDS, THIS DESPITE THE FACT THAT THERE IS NO PRESENT OR POTENTIAL EFFLUENT TO CONTROL, EITHER MUNICIPAL OR INDUSTRIAL, AND LOCAL REGULATIONS ARE FAR MORE STRICT THAN FEDERAL REQUIREMENTS UNDER WHICH THE RESERVOIR WOULD BE OPERATED UNDER CORPS REGULATIONS. HIGH ENVIRONMENTAL STANDARDS ARE IN JEOPARDY.

THE ACTUAL DETERMINATION BY THE DISTRICT CORPS OFFICE IS DATED JANUARY 3, 1972, AND IS BASED ON NEWSPAPER ACCOUNTS OF UNSUCCESSFUL ATTEMPTS TO DEVELOP COMMERCIAL NAVIGATION ON THE TUALATIN RIVER AND LAKE OSWEGO, ACCOUNTS WHICH WERE SINCE DISCOUNTED BY A FORMER PUBLISHER OF THE MAJOR NEWSPAPER IN QUESTION, THE OREGONIAN, AS "HIGHLY QUESTIONABLE" INVOLVING PUBLICITY CONCERNING DREAMS OF A NAVIGATION EMPIRE AND FUND RAISING FOR ITS CONSTRUCTION THAT NEVER CAME TO PASS.

AS ONE EXAMPLE, LATE 19TH CENTURY NEWSPAPER PUBLICITY CITED IN THE CORPS DETERMINATION TOLD HOW THE STEAMBOAT "ONWARD," 98 FEET LONG WITH A BEAM OF 17 FEET, SAILED DOWN THE OSWEGO CANAL INTO SUCKER LAKE, AS LAKE OSWEGO THEN WAS CALLED, WITH 2,000 BUSHELS OF GRAIN AND MISCELLANEOUS FREIGHT. THE FACTS ARE:

THE OREGON STATE ENGINEER, IN HIS FINDINGS OF FACT AND ORDER OF DETERMINATION CONFIRMING THE HOMEOWNER ASSOCIATION'S WATER RIGHT FOR

HYDRO PURPOSES ONLY, AND CONFIRMED BY THE OREGON SUPREME COURT ON NOVEMBER 16, 1961, STATES THAT: "RELATIVE TO THE CANAL, IT APPEARS THAT NO ENLARGEMENT THEREOF HAS BEEN MADE SINCE 1885." AND THE SUPREME COURT DECISION CITED A MEMORANDUM DATED SEPTEMBER 16, 1909, RECORDING THE CONDITION OF THE CANAL AND STATING THAT IT "WAS CLEANED OUT SO AS TO MAKE IT SIX FEET WIDE AT THE NARROWEST PLACE." HOW A 17-FOOT-WIDE BOAT ALLEGEDLY NEGOTIATED A SIX-FOOT CANAL WAS NOT EXPLAINED. THE SIZE OF THE CANAL IS MATERIALLY THE SAME TODAY.

THE FACT IS THAT THE CORPS WAS HARD PRESSED, SHORT OF PERSONNEL AND FACILITIES TO HANDLE THE SUDDEN NEED FOR A HUGE WATER POLLUTION PERMIT PROGRAM FOR "NAVIGABLE" WATERS SUDDENLY FORCED ON IT IN THE 1971-72 PERIOD, A TEMPORARY PROBLEM SINCE MADE THE RESPONSIBILITY OF OTHER AGENCIES, INCLUDING THE STATE WITH "NAVIGABILITY" NO LONGER PERTINENT. THIS WOULD ACCOUNT FOR AN ISOLATED, FRESH WATER RESERVOIR IN THE CENTER OF A RESIDENTIAL NEIGHBORHOOD BEING INCLUDED IN A BLANKET LIST OF "NAVIGABLE" WATERS, AND WITHOUT A PRIOR FIELD SURVEY TO DETERMINE THE FACTS.

FOLLOWING THE DETERMINATION OF NAVIGABILITY OF LAKE OSWEGO AND ITS MAIN CANAL IN 1972, AS WELL AS THE TUALATIN RIVER, THE OREGON DISTRICT OFFICE OF THE CORPS DID IN FACT MAKE A FIELD SURVEY, WHICH SUBSTANTIATED THE FACTS, BOTH GEOGRAPHICAL AND HISTORICAL, AS HAVE BEEN SUMMARIZED.

AS A RESULT OF THIS FIELD SURVEY, THE DISTRICT ENGINEER AND THE DIVISION ENGINEER BOTH ACTED TO RESCIND THE "NAVIGABILITY" DETERMINATION FOR THE LAKE OSWEGO RESERVOIR AND MAIN CANAL.

AFTER A LONG DELAY, THE GENERAL COUNSEL'S OFFICE OF THE CHIEF OF ENGINEERS IN WASHINGTON, D.C. DETERMINED THAT THERE WAS NO PRECEDENT FOR SUCH DECLASSIFICATION UNDER THESE CIRCUMSTANCES. AN ACT OF CONGRESS WAS THE ONLY RECOURSE. WE WERE SO INFORMED BY THE CORPS AND ALSO ADVISED BY THEM ON HOW TO PROCEED. SUBSEQUENTLY, THE CORPS FURTHER STATED IN A PUBLIC REPORT OF JANUARY, 1976, THAT EVEN THE TUALATIN RIVER, OF WHICH THE LAKE

Oswego reservoir had been declared a part, could not be considered as a possibility for navigation because of the 30-foot drop near its mouth to the Willamette river, rock reefs, etc., similar to the Corps report submitted to the 53d Congress in the 19th century.

The Corps has adopted a "hands off" policy toward assuming government control of Lake Oswego until Congress has had the opportunity to act on this corrective matter.

"Navigability" has been interpreted in public Corps statements to mean free public access. The small reservoir is already crowded by more than 1,000 boats state and locally licensed to families with deeded use privileges upon which local property values are based. Boat operator examinations and other necessarily strict safety rules would be voided by free access, and the Lake Oswego Corp. would face loss of its source of assessment income to pay for water, safety patrols, water treatment and deficit operation of the powerhouse to maintain the water right which is the major supply for the reservoir. Irreparable loss would be incurred upon thousands of people who own and maintain this privately owned recreational facility. Both the navigation and pollution questions were moot from the beginning, as the subsequent field survey by the Corps proved. The reservoir and its canals comprise a waterfowl sanctuary, and state fishing, boating and pollution regulations apply.

No question of state rights is involved, we are assured by the state representative from our district after discussion by him and others with top ranking state officials, since federally designated "navigability" has no effect on the Act creating the State of Oregon and its rights. Special water safety rules have been adopted by the Oregon Marine Board, at the request of the Lake Oswego Corp. and after public hearings, to establish the strictest boating safety regulations, we believe, in the

NATION. A FISH LADDER IS OPERATED AT OUR DAM IN COOPERATION WITH THE BUREAU OF RECLAMATION AND STATE OF OREGON. ALL OF THIS WOULD BE JEOPARDIZED BY FEDERAL CONTROL, INCLUDING OVER $200 MILLION IN LOCAL PROPERTY VALUATION, TO A LARGE EXTENT DEPENDENT UPON OPERATION OF THE RESERVOIR AS IT HAS EXISTED UNDER PRIVATE OWNERSHIP AND CONTROL FOR MORE THAN A CENTURY TO MAINTAIN ITS QUALITY.

THE CORPS HAS ADVISED US THERE ARE NO PUBLIC FUNDS, WHICH WOULD HAVE TO BE SUBSTANTIAL, FOR NOW PRIVATELY FINANCED WATER SAFETY AND LAW ENFORCEMENT PATROLS, ALGAE CONTROL TO PREVENT EUTROPHICATION OF THE LAKE, PAYMENTS FOR PURCHASED WATER TO SUPPLY THE LAKE, DEFICIT OPERATION OF THE POWERHOUSE AND MAINTENANCE OF THE THREE DAMS TO PRESERVE OUR WATER RIGHT, AND TO ENFORCE HIGH ENVIRONMENTAL AND ESTHETIC STANDARDS THAT ARE NON-EXISTENT ON OTHER SO-CALLED PUBLIC "NAVIGABLE WATERS OF THE UNITED STATES."

THIS PROBLEM BECAME APPARENT WHEN THE CORPS COMPLETED ITS FIELD SURVEY, INCLUDING AN ENGINEERING STUDY OF THE MAIN CANAL AND ITS PAST, PRESENT AND FUTURE NAVIGATION POTENTIAL, AFTER WHICH THE CORPS IMMEDIATELY MOVED AT THE DISTRICT AND DIVISION LEVEL TO ELIMINATE LAKE OSWEGO AND ITS CANAL FROM THE BLANKET "NAVIGABILITY" ACTION WHICH INCLUDED THESE ISOLATED WATERS AS PART OF THE TUALATIN RIVER SYSTEM.

"NAVIGABILITY" PLACED THESE PRIVATELY BUILT AND MAINTAINED ISOLATED WATERS IN THE SAME CATEGORY AS THE MISSISSIPPI RIVER WHEN, IN FACT, THEY ARE IN EFFECT A BACKYARD SWIMMING POOL.

WE DO NOT WISH TO DETAIL HOW THE ERROR OCCURRED SINCE WE DO NOT WISH TO CAUSE EMBARRASSMENT TO THE CORPS, WHICH DESERVES ITS HIGH RESPECT, PARTICULARLY SINCE THE INCIDENT HAPPENED DURING A BRIEF PERIOD OF CRITICAL AND UNUSUAL PRESSURE ON CORPS PERSONNEL. THIS WAS REQUESTED BY THE CORPS, BUT WOULD HAVE BEEN OUR ATTITUDE IN ANY EVENT.

TO OUR KNOWLEDGE THE ONLY QUESTIONS RAISED CONCERNING THIS PROPOSED REMEDIAL LEGISLATION, WHICH THE CORPS SUGGESTED WE REQUEST, HAVE BEEN WHETHER ANY STATE'S RIGHTS WOULD BE AFFECTED, THE VALIDITY OF ANY REAL COMMERCIAL NAVIGATION IN INTERSTATE COMMERCE IN THE 19TH CENTURY, AND PUBLIC RIGHTS TO THE USE OF PRIVATE WATERS. WE BELIEVE THESE FEW QUESTIONS HAVE BEEN ANSWERED IN DETAIL BY THE SUBSEQUENT CORPS FIELD SURVEY, BY STATE OF OREGON OFFICIALS, AND BY THE RECORD, WHICH IS BRIEFED IN WRITTEN TESTIMONY SUBMITTED TODAY INCLUDING A MAP SHOWING THE 20 PUBLIC AND SEMI-PUBLIC WATERFRONT PARKS AROUND THE RIM OF THE RESERVOIR IN QUESTION.

WE HAVE NOT BURDENED THE COMMITTEE OR THE POSTAL SERVICE BY SUGGESTING SEVERAL THOUSAND LETTERS FROM OUR HOMEOWNER MEMBERS URGING PASSAGE, AS A SUPPLEMENT TO TODAY'S PERSONAL AND WRITTEN TESTIMONY. WE WOULD BE HAPPY TO DO SO IF YOU FEEL IT WOULD BE HELPFUL, ALTHOUGH I UNDERSTAND NUMEROUS LETTERS HAVE BEEN WRITTEN ANYWAY TO OUR DELEGATION AND SOME TO THE COMMITTEE.

THE RESERVOIR AND CANAL IN QUESTION ARE ENTIRELY SURROUNDED BY THE CITY OF LAKE OSWEGO, A BUILT-UP RESIDENTIAL AREA WITH A HISTORY OF PRIVATE OWNERSHIP DATING TO THE MID-19TH CENTURY. ENVIRONMENTAL, SAFETY, HEALTH AND OTHER REQUIREMENTS HAVE BEEN AND ARE ESTABLISHED FAR IN EXCESS OF ANY CURRENT OR CONTEMPLATED FEDERAL REQUIREMENTS, BUT WILL BE JEOPARDIZED WITHOUT THIS REMEDIAL LEGISLATION WHICH THE CORPS OF ENGINEERS HAS RECOMMENDED AS THE ONLY SOLUTION TO THE PROBLEM.

ON BEHALF OF THE THOUSANDS OF PEOPLE IN THE CITY OF LAKE OSWEGO WHO WILL BE ADVERSELY AFFECTED WITHOUT THIS REMEDIAL LEGISLATION, I THANK YOU FOR YOUR CONSIDERATION. IF THERE ARE ANY QUESTIONS, I WILL ATTEMPT TO ANSWER THEM AS ONE OF MANY WHO HAVE BEEN PERSONALLY INVOLVED SINCE INCEPTION OF THE PROBLEM IN 1972. I KNOW OF NO ADVERSE COMMENT BASED ON THE HISTORIC, PHYSICAL OR LEGAL FACTS INVOLVED.

LAKE OSWEGO CORPORATION
P.O. Box 203 Lake Oswego, Oregon 97034

August 4, 1976

Addendum to oral remarks in favor of S. 2315.
By Lamar Newkirk, director, Lake Oswego Corporation.

Following preparation of oral testimony, it has been suggested that the question of state rights under our traditional "unnavigable waters of the United States" status, which this remedial legislation would restore, be in more detail:

We have for many years, and must under law continue, to operate under the regulations of every state agency that conceivably could have, or would wish to have, any logical jurisdiction. This is no problem, since private rules and regulations for these waters exceed all requirements where such a comparison is possible. Included are:

1. State Department of Environmental Quality under guidelines of the Federal Environmental Protection Agency.

2. State Engineer and State Water Resources Board, as well as the Federal Bureau of Reclamation, on water control and monitoring.

3. State Marine Board on boat licensing fees and enforcement by Lake Oswego Corp. marine police of all state and federal marine laws as well as special rules for the crowded condition of the lake as set by the homeowners association and by the State Marine Board after public hearings at the request of the Lake Oswego Corp.

Hydro-electric Generation • Police and Water Safety Patrols
Construction and Environmental Permits • Boat and Operator Licenses
Marine Services – Gas and Oil

Lake Corporation Headquarters 700 S.W. McVey Avenue Lake Oswego, Oregon

4. An enabling act by the Oregon State Legislature for erection and operation of private facilities forming the reservoir.

5. State Fish and Game, as well as the Federal Government, on operation of the fish ladder at our diversion dam, plus requiring state fishing licenses for angling on the reservoir. Funds for enforcing state fishing regulations are provided by the Lake Oswego Corp.

6. State Health Dept. on water pollution control and monitoring for water contact sports (by privately funded monitoring and chemical treatment, the small reservoir's water quality is maintained at better than the accepted requirement for municipal drinking water prior to chlorination).

7. Oregon Supreme Court findings of 1961 on water use and rights.

8. Statehood Act of 1859 under which waters can be declared navigable for state purposes whether or not they are "navigable waters of the United States."

It also should be pointed out that a retired state legislative secretary, completely unfamiliar with the reservoir, has raised the question with state officials and our Congressional delegation of possible loss of state revenues from gravel dredging. This is moot, since there is no gravel or other known resources of value in the bed of the former swamp that now forms the lake bed. Nor are there any applicable moorages on which fees could be collected by the State Land Board, nor any potential moorages since boathouses and docks are of necessity on private property and there are no floating moorages feasible or allowed. Also it is the opinion of legal counsel to the Oregon State Legislature, after conferring with the executive branch of state government, that federal navigability status has no effect on state rights of any potential significance, including those of the State Land Board, which has the power to declare the reservoir and canal "navigable" for state purposes.

SUMMARY OF PROCEEDINGS BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

The Lake Oswego Corporation was first contacted by the Federal Power Commission (the predecessor of the Federal Energy Regulatory Commission) by a letter dated October 29, 1976. In the letter, the Commission notified the Lake Oswego Corporation (Lake Oswego) that if Lake Oswego's power facilities affected interstate commerce, the facilities were within the Commission's jurisdiction.

The Lake Oswego Corporation's power facility consists of a small dam at the east end of Lake Oswego which impounds up to 20 feet of headwater. Power is generated by a single 600 KVA generator that operates on a part-time basis depending upon the availability of water. The power generated is sold under contract to Portland General Electric Co., a public utility which utilizes the power within the Lake Oswego area.

The Lake Oswego Corporation submitted affidavits to the Commission establishing that the power generated did not enter or affect interstate commerce. The Commission, however, responded that the Lake Oswego Corporation would have to petition the Commission for a formal declaratory order in order to resolve the question.

On August 14, 1977, the Lake Oswego Corporation petitioned the Commission for a declaratory order declaring that Lake Oswego's power facilities were not within the Commission's jurisdiction. On January 9, 1979, over 17 months later, the Commission issued its first public notice of the filing of Lake Oswego's petition for a declaratory order. The Commission allowed interested persons until February 20, 1979 within which to protest or intervene in the proceeding. The notice did not indicate what action, if any, the Commission had taken or would take in the future.

Without futher notice, on May 3, 1979, the Commission issued an order finding licensing required with respect to Lake Oswego's hydroelectric facility. In the order, the Commission purported to determine disputed facts concerning the history of Lake Oswego and concluded that Lake Oswego was a navigable water of the United States. The order required Lake Oswego to file an application for a minor power license within 180 days from the date of the issuance of the order. The order did not mention the effect of the power generated on interstate commerce, which was the Commission's original area of inquiry.

The Commission's order came without any prior notice to Lake Oswego that the Commission disputed facts concerning the non-navigability of Lake Oswego or that the Commission was, in fact, conducting an investigation or other fact-finding proceeding with respect to the question of navigability. The Lake Oswego Corporation had understood that the question of the navigability of Lake Oswego had been resolved by the passage of §162 of the Water Resource Development Act of 1976.

In any event, the Commission did not conduct a hearing and Lake Oswego was given no opportunity prior to the order to comment or present evidence with respect to disputed factual issues regarding the navigability of Lake Oswego. In fact, until the Commission's order of May 3, 1979, Lake Oswego was aware only that the Commission was concerned with the question of interstate transmission of power and submissions in support of its petition were directed to that issue.

On July 2, 1979, the Lake Oswego Corportion filed with the Commission a motion for a hearing and to allow submission of evidence and briefs. Lake Oswego also made an application and petition for rehearing or reconsideration. On August 1, 1979, the

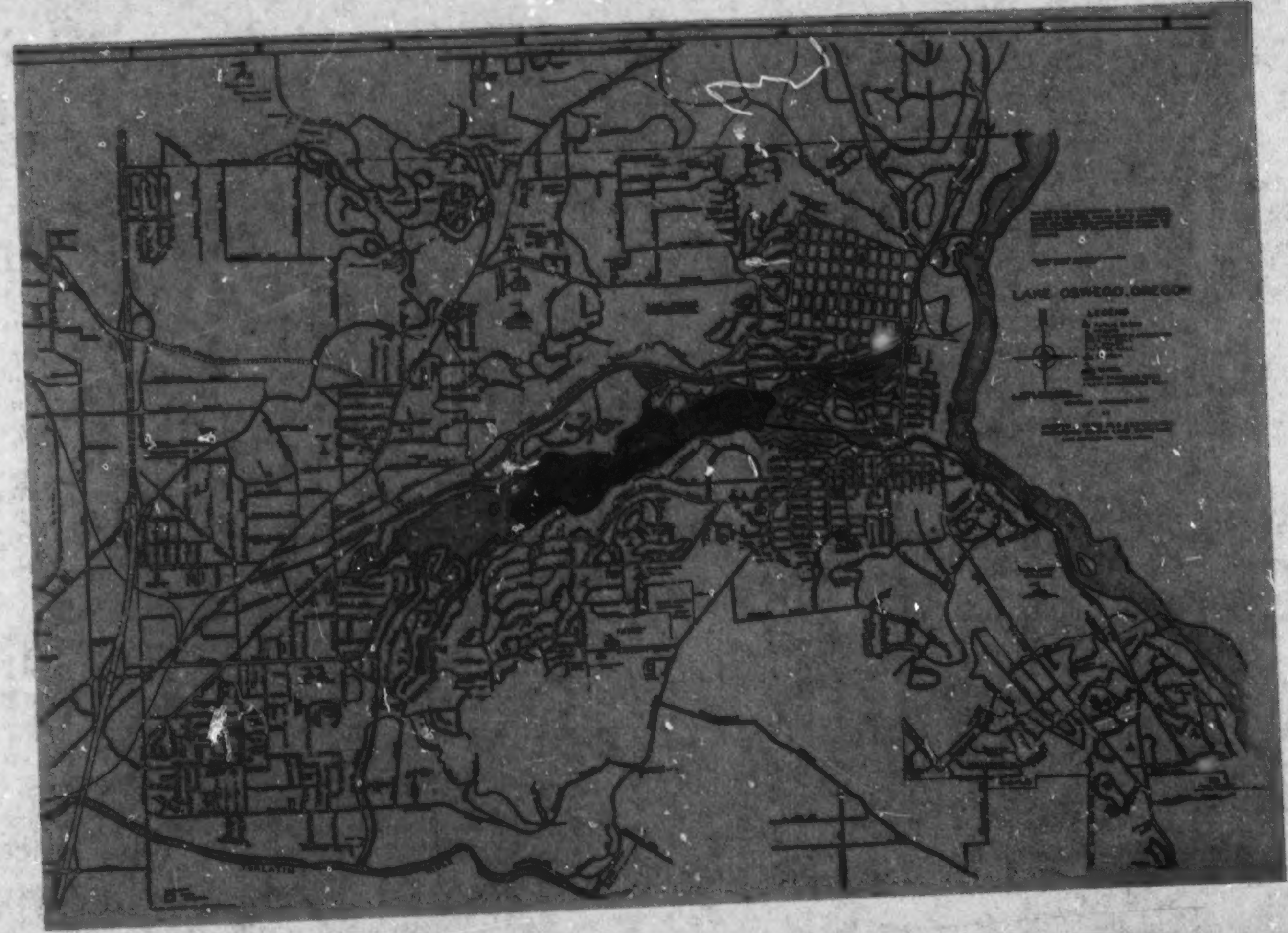
Commission issued an order allowing Lake Oswego to submit a written memorandum containing a "proffer" of evidence concerning issues of navigability. The Commission, however, still refused to conduct a hearing.

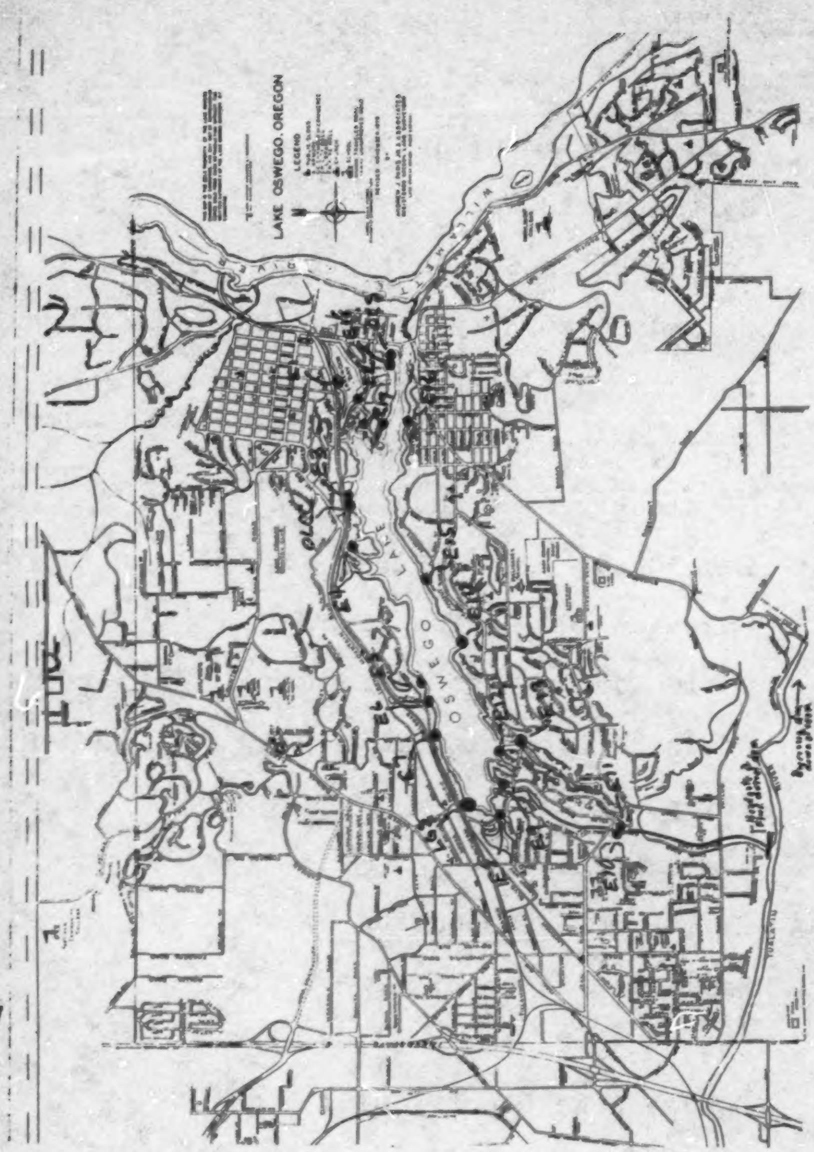
The Commission subsequently issued another order rearguing and redetermining questions of fact concerning the history of Lake Oswego. The order, issued February 20, 1981, again ordered Lake Oswego to file an application for a minor power license within 180 days.

On March 13, 1981, Lake Oswego filed an application and petition for rehearing of the Commission's order of February 20, 1981. The Commission refused to grant a hearing and, as a result, on June 4, 1981, the Lake Oswego Corporation filed a petition for review with the United States Court of Appeals for the Ninth Circuit.

The appeal of the Commission's order is presently pending before the United States Court of Appeals for the Ninth Circuit. In the meantime, Lake Oswego Corporation has been required to proceed with an application for a minor power license before the Commission. On August 18, 1981, the Lake Oswego Corporation filed, under protest and contesting the Commission's jurisdiction, an application for a minor power license. The application was accepted by the Commission and is presently pending.

Although the Lake Oswego Corporation has presented the issue on several occasions, the Commission disputes the purpose and effect of the 1976 Act declaring Lake Oswego to be a non-navigable waterway. The purpose of the proposed legislation is to remove any doubt as to the purpose and effect of the legisation concerning the status of Lake Oswego. As in 1976, this proposed legislation would again clarify and restore Lake Oswego's status as a non-navigable water. Futhermore, the legislation will eliminate a tremendous waste of time and resources of the Lake Oswego Corporation and the Commission in the pending proceedings.


LAKE OSWEGO, OREGON
LEGEND


LAKE OSWEGO, OREGON
LEGEND
WILLAMETTE RIVER
OSWEGO LAKE

MAP OF LAKE OSWEGO BASEMENTS

PUBLIC AND SEMI-PUBLIC WATERFRONT PARKS AND EASEMENTS

Legend:

E 1	Lakewood Bay Community Club
E 2	North Lake Club
E 3	Forest Hills Community Club
E 4	Uplands Community Association
E 5	Summit Court Club
E 6	Springbrook Association
E 7	Goodin Easement Association
LGS	Lake Grove Swim Park
E 8	Lakeview Recreation Club
E 9	Maple Circle Association
E 10	Woodside Community Club
E 11	Bryant Park
E 12	Alder Point Club
E 13	Blue Heron Association
E 14	Palisades Easement Association
E 15	South Shore Glen
OLCC	Oswego Lake Country Club
E 16	Oswego Lake Villa Club
OCS	Oswego City Swim Park
E 17	South View Club
E 18	Lakewood Yacht Club

NEWSPAPER ARTICLES

Lake Oswego Darn told it needs federal license

The tiny Lake Oswego Dam has failed to escape the long arm of the federal Energy Regulatory Commission, which decreed Wednesday that the dam must be licensed.

The Lake Oswego Corp., operator of the dam, argued in a 1977 request for an exemption from federal licensing that its 500-kilowatt generating capacity was too small to justify the costs of required to keep records and other paper work.

The electricity is sold to Portland General Electric Co. for use locally.

A spokesman for Rep. Les AuCoin, D-Ore., said the commission informed the congressman's office of its decision, but did not include a written opinion.

A commission spokesman could not be reached for comment Wednesday.

Stuart Bingham, president of Lake Oswego Corp., said the procedures for federal licensing will remain unclear "until we see the (written) opinion." The corporation still believes that the dam does not meet any of the required criteria for licensing, including the fact that the power it produces is not used in interstate commerce, Bingham said.

While the specifics of the procedures are not yet known, they will be "very involved and very expensive," said Jack Kennedy, the corporation's attorney.

AuCoin, who opposed licensing the dam, said he was "disappointed" at the commission's decision. He termed the situation an "absurdity."

Tiny Oswego dam faces U.S. 'meddling'

By JOE MATT
Journal Correspondent

LAKE OSWEGO — A spokesman for Lake Oswego Corp. has termed "ridiculous" the possibility of federal regulation of the powerhouse at Lake Oswego Dam.

Carl Halvorson, a Lake Oswego Corp. board member, contends the federal government has "no business" being concerned with a project as small as the Lake Oswego plant.

"It's like the government regulating a small generator in your back yard, or like the federal director of revenues being concerned about how much change some guy on the street had in his pockets," Halvorson said.

Power output from Lake Oswego is 450 to 500 kilowatts. Experts say this is about enough power to serve a small sawmill or a medium-sized grocery store.

The Lake Oswego Corp., which oversees operation of the dam, power facility, and management of the lake, has petitioned to be declared outside federal Energy Regulatory Commission jurisdiction. The possibility that the facility will be required to come under regulation stems from a 1977 Regulatory Commission regulation requiring "thousands" of non-federally-owned hydroelectric plants to be licensed and come under commission control, or show why they should be declared immune from such control, according to a commission official.

The corporation was one of "2,000 or so such projects" notified by the 1977 action, the official added.

William Kopfler, chief of the licensed projects branch of the Energy Regulatory Commission's regional office in San Francisco, said the commission was requiring licensing of non-federal hydro plants "in order to ensure (their) compliance with federal safety and adequacy standards."

The prospect of a licensing requirement nettles Halvorson. "You'd think the federal government has something better to do than get into a little thing like this," he said.

"And the most ridiculous thing about it," he continued, "is that the government could well wind up spending as much on the involved process of regulating this dam as it does on big projects like Bonneville or Grand Coulee dams."

Costs to Lake Oswego Corp. for required record keeping are what it would like to avoid, Halvorson said.

Kopfler said he is aware of the argument that projects like Lake Oswego are relatively tiny. But, he noted, "the commission regulates many projects of comparable size and some much smaller."

The commission has jurisdiction over some projects "with dams only four feet high," Kopfler added. Some of the sites have a capacity of only 15 kilowatts, he noted, while the large ones the commission oversees go as high as 1,500-megawatts. Such large projects are comparable to Bonneville Dam, he noted.

Kopfler admitted that the Lake Oswego site "is definitely on the small side."

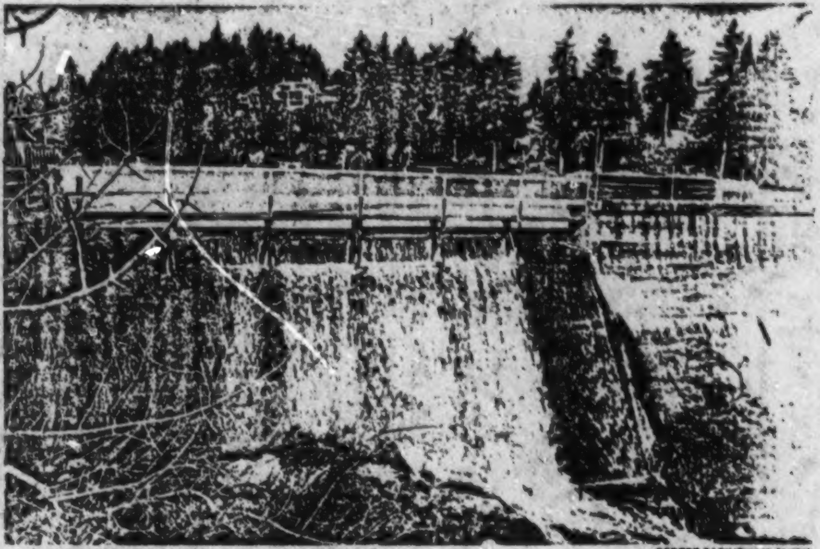
In its petition to remain outside the commission's grasp, the Lake Oswego Corp. contended the project does not fit the standard criteria for regulation. The site does not affect "a navigable waterway of the United States," is not located on federal lands, does not supply power to an interstate network, and the waterway does not affect interstate commerce, corporation attorney Jack Kennedy contends.

The Regulatory Commission may not be inclined to agree with those arguments when it begins review of the case after Feb. 20, according to Kopfler. He said the corporation's arguments on where the power goes may not get around commission guidelines because the power from the plant feeds into the Portland General Electric Co. system, which has interstate transmission.

The Lake Oswego Corp. reports it received $12,892.5[illegible] from PGE for power produced by the plant in 1978, reflecting a rate of 6.5 mills per kilowatt hour. The corporation compared this to a cost of 16 mills per kilowatt hour for Trojan-produced power.

Kopfler said it may be determined that the dam site is on a navigable waterway affecting interstate commerce "even if the only use was by trappers transporting furs by canoe."

All this fails to impress Halvorson. The whole idea of the federal government regulating such a small hydroelectric plant is "stupid," he observed. "This is why private business is getting out of hydro-power production."



ROBERT BACH/[illegible]

FACING REGULATION — Operators of Lake Oswego Dam call plans by the federal government to regulate its small power output "ridiculous." They have asked for an exemption from Federal Energy Regulatory Commission jurisdiction.

AuCoin: Oswego dam too little for licensing

WASHINGTON — Operating wide open, Lake Oswego's powerhouse generates enough electricity to toast a few more than 1,300 slices of bread simultaneously.

That, says Rep. Les AuCoin, isn't enough to require a Federal Energy Regulatory Commission license for the powerhouse and dam impounding the lake.

FERC included the Lake Oswego Corp. facilities in its list of 2,000 small hydroelectric projects around the country it says should be licensed as meeting federal safety and adequacy standards. AuCoin said, however, in a letter to the agency this week that FERC had overlooked a few facts:

— Lake Oswego's facilities have been sitting there, essentially unchanged, since 1921. Federal law says substantial construction and development must have taken place since 1935.

— The electricity generated in the powerhouse is sold to Portland General Electric Co., which uses it locally, not in interstate commerce.

— Lake Oswego isn't a navigable body of water that can be used in interstate or foreign commerce.

So, AuCoin says, the corporation's facilities can't fall under the federal licensing law.

He urged the commission to exempt the Lake Oswego Corp. from licensing and wondered whether the federal government was spending time and money needlessly in attempting to make it apply for a license.

The commission is the second federal agency to lick its jurisdictional chops over the lake in recent years. The last one was the Army Corps of Engineers.

AuCoin: power plant too small

The Lake Oswego Corporation, which controls Oswego Lake and the hydroelectric dam, is getting a helping hand from Rep. Les AuCoin in its effort to stay out from under the control of the Federal Energy Regulatory Commission.

The commission included the Oswego Lake Dam in its list of 2,000 small hydroelectric dams throughout the United States that should be licensed to meet federal safety and adequacy standards.

AuCoin, however, feels that it is absurd to lump the Oswego Lake Dam in with other large hydroelectric facilities such as Bonneville or McNary.

In asking for an exemption from the commission, AuCoin said, "Putting this small dam under an arm of the federal government makes no sense at all. All that would happen would be to make more paper work and more red tape. It might be different if there were questions of safety at stake, but there aren't. It's even unfortunate that the corporation has to go through these exemption proceedings."

In a letter to the commission, AuCoin cited three reasons the dam doesn't come under commission regulations and, therefore, shouldn't be licensed:

— There must have been construction on the dam since 1935.

The Lake Oswego Corporation's legal council said the dam was completed in 1921 and there has been no development or construction since.

— The power generated by the dam is used to meet interstate commerce needs.

The lake corporation and Portland General Electric, who buys the power, have sent the commission affidavits that all power is used within Lake Oswego.

— The lake is used for interstate transportation of people or property.

Oswego Lake is used only for pleasure craft and recreation purposes by community residents. The lake was also declared unnavigable for interstate transportation purposes by Congress in the 1976 Water Resources Act.

AuCoin said it was absurd to consider the less than two million kilowatts generated by the Oswego Lake Dam in 1978 as having a significant impact on the city's power needs throughout the year. He said this is completely out of proportion to the amount of paper work and other licensing procedures the facility must go through to meet federal approval.

The energy commission is still considering the matter.

Washington scene of hearing

Dam's fate on the line today

By BRAD LaBRIE
Staff Reporter

The Oswego Lake Corp. and Oregon U.S. Rep. Les AuCoin are continuing their fight today in Washington D.C. to prevent a federal agency's attempts to license and regulate the Oswego Lake Dam.

An appeal hearing before the federal Energy Regulatory Commission is being held today as a result of objections by the Lake Corporation and AuCoin over the ERC's attempt to regulated the dam, which was built in 1925 with local funds and which has been locally controlled since t[illegible]

The dam sits near McVey Avenue and releases water into Oswego Creek and a hydroelectric powerhouse whose production is sold to Portland General Electric. It was built and is regulated by the Lake Corporation, which is an association of people who own property around Oswego Lake.

"The main purpose of the dam is that it holds the level of the lake up," said Don Burdick, a Lake Corporation board member. "Among the dam's functions is that it holds the level of the lake up and since the lake is a reservoir the dam allows for generation of power.

"The lake would be 20 feet below where it is now if the dam wasn't there."

AuCoin assistant John Atkins Tuesday said federal attempts to regulate operation of the dam is a definite case of excessive local interference.

"It will be a huge headache" if the federal agency does decide to regulate the dam with tremendous costs being associated with federal paperwork, Atkins said.

In 1979, the federal Power Commission told the Lake Corporation that it had to apply for a license to operate the dam, Atkins said. Commissioners of the federal agency said there are federal statutes which can be interpreted to say that the local dam would have to be licensed and put under a federal regulatory agency.

The Lake Corporation immediately appealed the decision. In the meantime, the federal Power Commission disbanded and was replaced by the federal Energy Regulatory Commission, which took up where the previous commission left off.

Atkins said that AuCoin is prepared to present legislation that would remedy the question of regulation if today's appeal is denied by the ERC.

"Lake Oswego's attitude is and we certainly sympathize with it and agree that federal funds were not involved in the dam construction and the (U.S.) Corps of Engineers had nothing to do with building it," said Atkins.

"We're prepared to implement legislative remedies in Congress if the decision is not favorable (to the Lake Corporation)." There is a lot of sympathy with other members in Congress, some of them Republicans, to provide some relief to Lake Oswego on this intrusion, he said.

The growth of bureaucracy and the regulatory authority of the federal government accelerated all through the 1960s and '70s, Atkins said. This intrusion on Lake Oswego is part of this bureaucratic growth, he added.

If the federal agency decides against the appeal then the "regulatory agency will impose a super-structure of regulation requirements on this dam," said Atkins. The regulations will govern such things as the water level, the recreational policy of the lake and "just a whole raft of regulations and guidelines."

Atkins refused to say exactly what legislative remedies AuCoin has in mind. "We'll wait and see if the decision goes against Lake Oswego."

Burdick says that the local community supports the Lake Corporation's appeal of the federal agency.

"I would say there's nobody in this community who sees a need for this licensing."

FEBRUARY 17, 1981 25 CENT

Appeal fails; dam under federal rule

A spokesman for U.S. Rep. Les AuCoin said the Oregon congressman will introduce legislation as soon as possible to rescind the federal Energy Regulatory Commission's ruling Thursday that the Oswego Lake Dam must be licensed and regulated by the federal government.

The ERC decision came after a hearing Thursday on an appeal by AuCoin and the Lake Corporation of earlier federal rulings in favor of regulation and licensing.

"Their decision was to reject the appeal by Lake Corporation, to reconsider the previous decision that the dam had to be licensed," said AuCoin aide John Atkins. "Les will introduce legislation immediately to rescind that decision."

The congressman will introduce a congressional resolution that should be considered by one of several House committees which deal with energy matters, said Atkins.

"It could take a matter of several weeks to several months, depending on how successful we are bringing this to the head of the committee agenda," he said. "I presume it would be the Energy and Commerce Committee.

"That whole process is going to take some time, because in Les' view this is a textbook example of governmental intrusion that people are complaining about."

The ERC's invistence that the 55-year-old dam should be federally regulated is "completely out of proportion" with the facility's size and purpose, said Atkins.

The dam, located near McVey Avenue, releases water from the lake into Oswego Creek. Its principal purpose, according to Lake Corporation board member Don Burdick, is to hold the level of the lake up. It was built in 1925 with local funds.

Water spilled from the lake also is used to generate some power, which is sold to Portland General Electric Co.

The federal government informed the Lake Corporation in 1979 that it must have a license to operate the dam. That decision was appealed quickly appealed by the local corporation, an association of private property owners.

The chances of AuCoin's legislation getting through the governmental process on Capitol Hill successfully are anyone's guess, said Atkins. But the current political climate seems right for such a move, he said.

"It's not easy to say at this point," he said, but the Reagan administration "has made much of a point to say we need to get the federal government off our backs. I think this is something that's perfectly consistent with that kind of an outlook," said Atkins.

If the ERC decision is allowed to stand, he said the dam will be subject to "a superstructure of regulation requirements," including regulations on water level, recreational policy of the lake and other issues.

A4 — Lake Oswego Review Tues., Feb. 17, 1981

Fire-breathing agency has roar but no smarts

For the life of us, we can't make any sense out of Washington, D.C., sometimes.

At the very same time the Reagan administration is filling us all with encouragement about plans to reduce the size of government and help us get out from under the paperwork and regulation-spitting federal beast, the bureacracy was last week trying hard to get a little bit bigger.

The federal Energy Regulatory Commission ruled Thursday that the tiny Oswego Lake Dam, built in 1925 with local funds for the purpose of raising and maintaining the water level, should be licensed and regulated by the federal government — just like Bonneville and McNary and Detroit and all the other electricity producers.

The basis for all this wisdom, of course, is the fact that the Oswego Lake Dam has a small powerhouse, and a certain amount of electricity is sold to Portland General Electric.

Thursday's decision was a reaffirmation of earlier federal edicts, dating back to 1979, that the local dam should have a federal license and should be subject to federal regulations. Owner of the facility, the Lake Corporation, picked up the gauntlet then and has been sparring with the large and apparently-dimwitted dragon ever since.

In the latest series of skirmishes, U.S. Rep. Les AuCoin has lent a valuable hand at the front lines in Washington, and has vowed to introduce legislation to exempt the dam from the regulatory requirements. But the outcome of that move is anything but certain, and we — like the association of property owners that feels the dragon's breath hot on their necks — have no idea why such prolonged combat is even necessary.

What does this all mean?

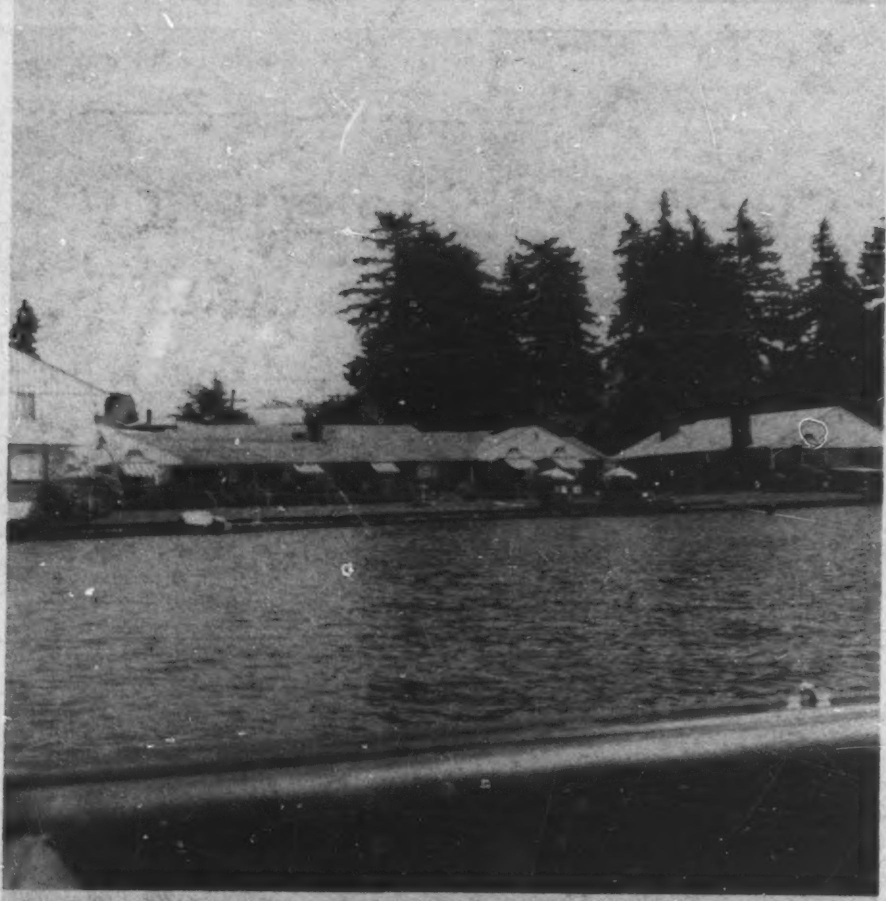
Does the commission's decision against the Lake Corporation mean we've got a "navigable waterway" on our hands again? It took a large part of the last decade, you will recall, to convince the feds that the lake and canal were not navigable, and therefore not subject to THAT can of bureaucratic worms.

Does it affect use of the land around the lake and mean the individuals who comprise the Lake Corporation will have to sacrifice first-born sons to the regulatory gods to get permission to build a dock or — heaven forbid — a lakefront home?

Will the new jurisdiction result in FBI lake patrols in an attempt to crack down on water skiers and boat drivers who violate federal statutes?

We don't pretend to know the answers to these questions. And it's our guess the dragon doesn't, either.

PHOTOGRAPHS

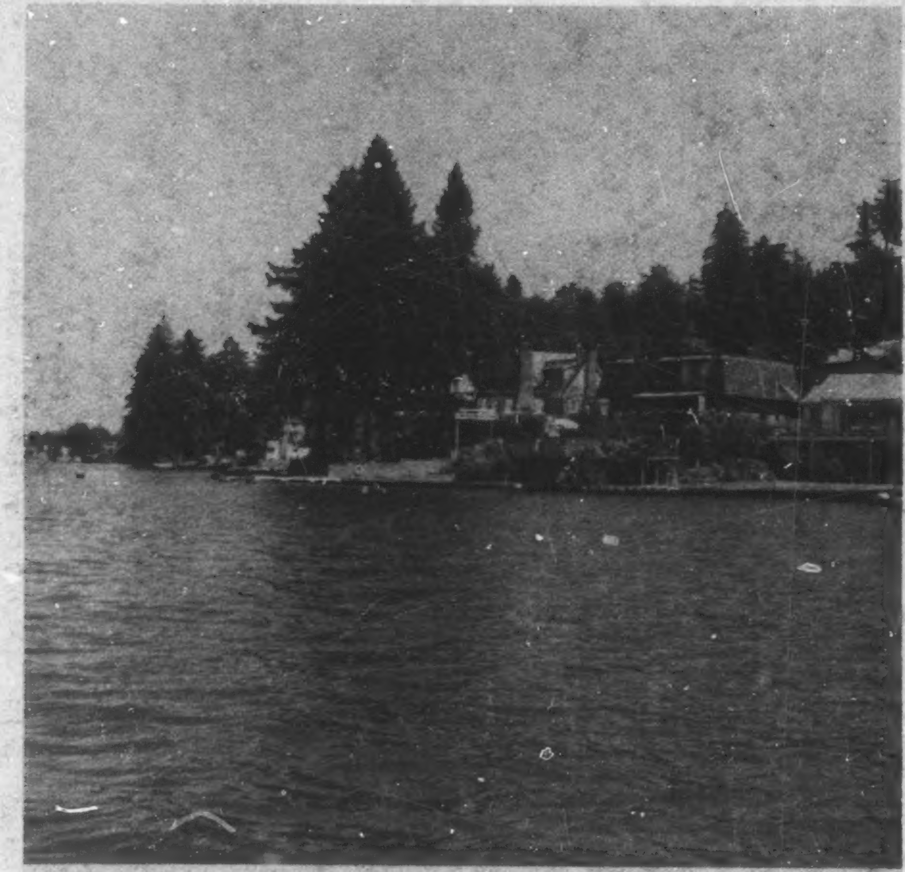


TYPICAL RESIDENTIAL WATERFRONT

LAKE OSWEGO

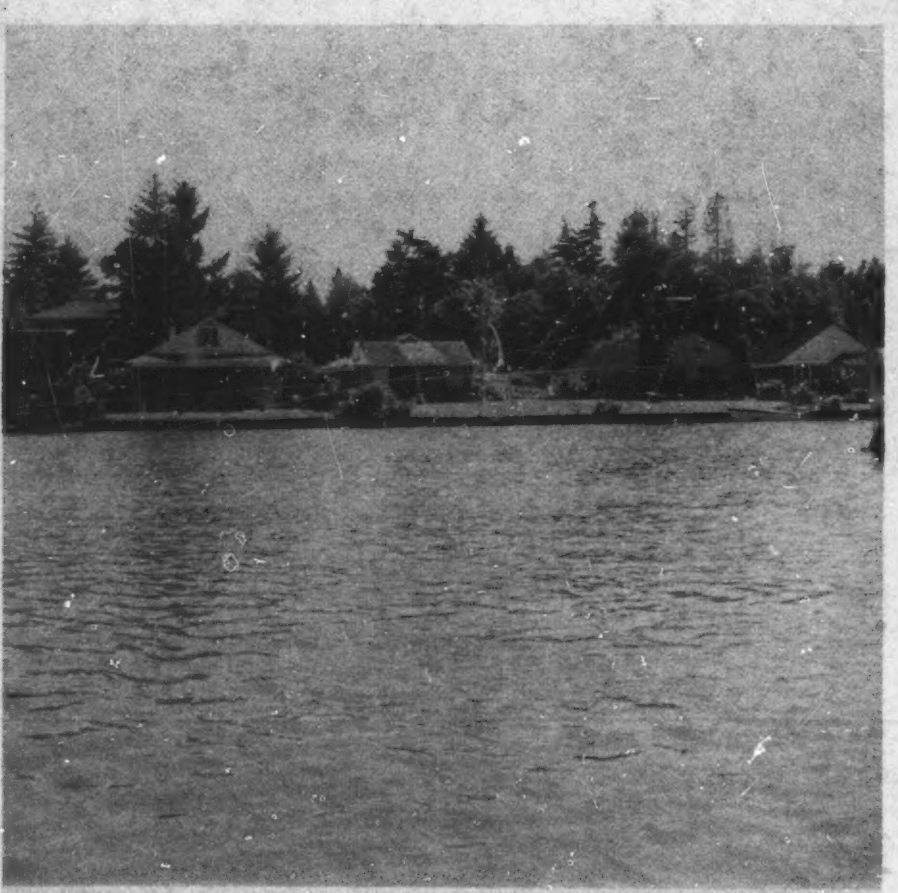
TYPICAL RESIDENTIAL WATERFRONT

LAKE OSWEGO



TYPICAL RESIDENTIAL WATERFRONT

LAKE OSWEGO

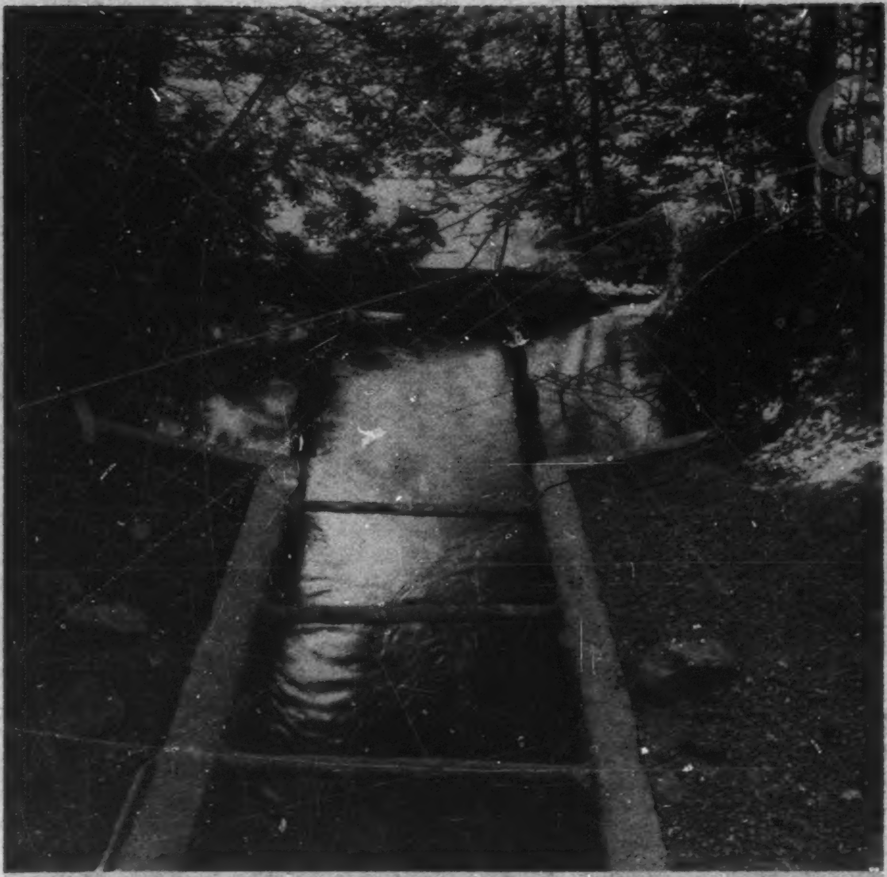


TYPICAL RESIDENTIAL WATERFRONT

LAKE OSWEGO

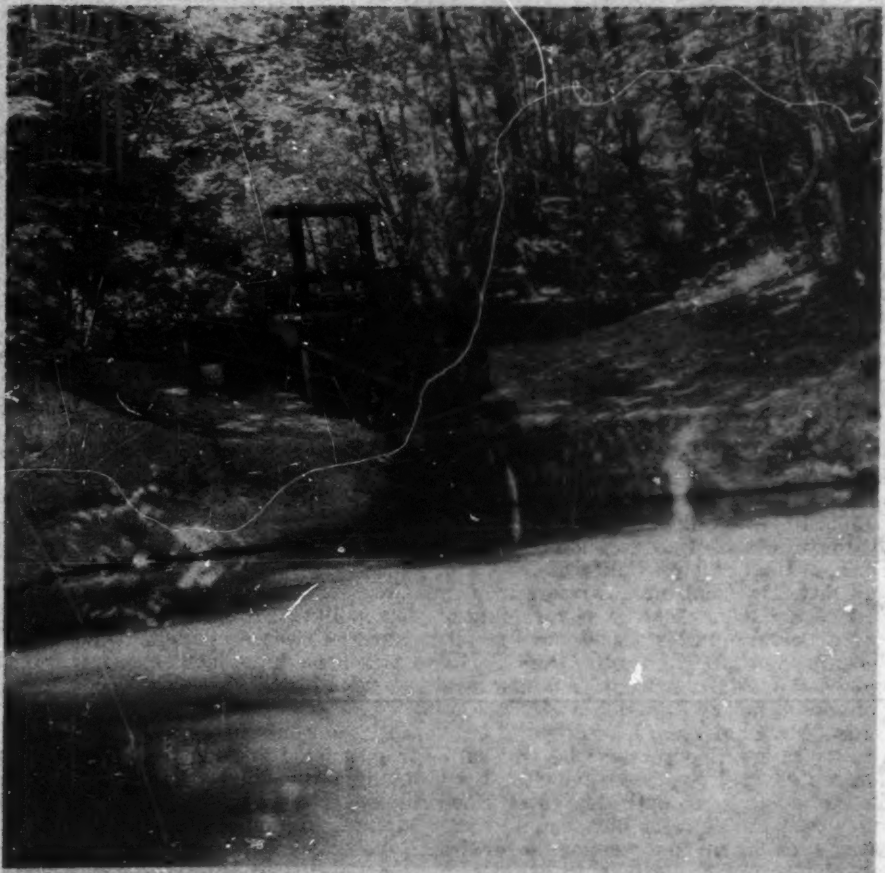
TYPICAL RESIDENTIAL WATERFRONT
LAKE OSWEGO

OSWEGO CANAL AT GAUGING STATION



OSWEGO CANAL HEADGATE

UPSTREAM VIEW TOWARD TUALATIN RIVER



OSWEGO CANAL HEADGATE

DOWNSTREAM FACE

APPENDIX II

Additional Statements and Communications Submitted for the Record

---

PREPARED STATEMENT OF HON. BARRY GOLDWATER, A U.S. SENATOR FROM THE STATE OF ARIZONA

Mr. Chairman, I appreciate the opportunity to offer a statement on two of the bills which are the subject of your hearing today, S. 956 and S. 2177. I am a joint sponsor of both bills with my colleague from Arizona, Senator DeConcini.

First, I will discuss S. 956, to increase the authorization for programs under the 1978 Federal Reclamation Dam Safety Act.

Unfortunately, the potential catastrophe you will hear about from other witnesses who will warn of overtopping of dams on the Verde and Salt Rivers above Phoenix is not theory; it is all too real and the disaster almost occurred in the Valley two years ago.

And I would point out that dam safety not only affects the one and one-half million residents of the Metropolitan Phoenix area. Many, many thousands of persons living in communities and productive farm lands of Western Arizona are also put in direct peril by the same disasters that haunt the Valley.

Floods in the Salt River can cause floods down-stream in the Gila River as well, cutting a swath of ruined homes and farms nearly 200 miles long all the way to Yuma at the border of California.

In fact, Mr. Chairman, farmers in Yuma, Arizona, have told me they are just as worried about dam safety as residents of metropolitan Phoenix. These growers reported that Yuma lost 5,000 acres of farm lands two years ago when floods in the Phoenix area forced dams on the Gila River to release huge loads of water into the valleys of Western Arizona. The potential loss from a major flood is 85,000 acres in Yuma and the Wellton-Mohawk District.

Also, Mr. Chairman, I would point out that it is not only persons who live or work directly in the flood plane who will suffer from a flood disaster. Major transportation routes would be closed harming the economy and welfare of citizens far outside the immediate flood path. Moreover, flood damage to the dams above Phoenix would likely halt the delivery of adequate water supplies to homes and businesses in the entire area for up to a year while repairs are being made. So it is beyond any question that a dam failure would directly and most seriously affect the entire population in and around Phoenix, Scottsdale, and adjacent communities.

Mr. Chairman, it is the Federal Government who will bear the responsibility for the catastrophic damages which would result from a disaster caused by design flaws in these dams, which were built according to Federal standards. The users of water supplied by the Salt River Project have already repaid the Federal Government for the construction costs of all dams in the system. It is wrong to require local people to pay for the dams again. This is why I believe the Federal Government should fund the Arizona dam safety measures authorized by S. 956 on a non-reimbursable basis.

Next Mr. Chairman, S. 2177 is a very important piece of legislation for the Irrigation Districts in Arizona. These districts in the Phoenix area are scheduled to receive water from the Central Arizona Project in 1985, and for the districts in the Tucson area, it will be 1989.

As you know, Mr. Chairman, other costs associated with the Central Arizona Project were indexed in the original 1968 authorization legislation, but for some inexplicable reason, the $100 million for the distribution systems was not indexed to provide for the increased costs caused by inflation. The Bureau of Reclamation now estimates that the total cost to construct all of the CAP water distribution systems for non-Indian lands will be $552 million in 1982 dollars; $452 million more than was authorized for this purpose in 1968.

The Granite Reef Aqueduct which is the main canal bringing water from the Colorado River to the Phoenix area is on schedule for completion, and water is expected to arrive in 1985.

With water delivery imminent, funding for the distribution systems is becoming increasingly important. It has been noted before that the CAP water will be of little benefit without these distribution systems. The Bureau of Reclamation needs to proceed with all reasonable haste to assure that the systems are in place when the water is available. There has to be money appropriated to the Bureau for loans to these districts. The individual districts were unsuccessful in their efforts to secure private loans.

In conclusion, I urge the Subcommittee to approve this legislation so that the major portion of the funds necessary to build the irrigation distribution systems will be available for lending to the irrigation districts.

Mr. Chairman, this concludes my statement.

PREPARED STATEMENT OF HON. HOWARD W. CANNON, A U.S. SENATOR FROM THE STATE OF NEVADA

Mr. Chairman, within months of the installation of the present pumps in the Southern Nevada Water Project, serious defects were detected in every unit. The operation of the pumps and motors has been seriously deficient since then. Remedial measures have been tried, financed by both the Hitachi company and the State of Nevada. These measures have cost, to date, nearly $1.5 million and far exceed the original cost of their installation.

An acceptable solution to eliminate further maintenance efforts and provide the least costly alternative is to replace the present casings with stainless steel casings. This alternative, which has been approved by the Bureau of Reclamation and other parties of interest, is the subject of the authorization contained in S. 1621.

The Committee will be interested to know that the Second Stage of the Southern Nevada Water Project was recently dedicated. It is expected to provide increased water supplies this coming summer. The completed project will provide adequate water supplies to southern Nevada until beyond the turn of the century. It is a marvelous public work, one which will provide a vital service and one which will more than justify its cost over its lifetime. However, it cannot be deemed to be completed until the defective pumps are put in permanent working order. I urge the Committee to favorably report this bill, which will accomplish that goal. It is a measure which has been the subject of considerable negotiation and is supported by the Administration.

Mr. Chairman, I also wish to address myself briefly to another bill being considered by the Committee today, S. 956. This bill authorizes additional appropriations for safety related work on Bureau of Reclamation dams. One of those dams which has been identified as needing safety repairs is the Rye Patch Dam in Nevada. It is my understanding that the estimated cost of the repairs would be about $4 million. The disasters which followed failure of the Teton Dam in Idado and dam failures in West Virginia and elsewhere make it imperative that needed repairs be undertaken without undue delay. To neglect these dangerous situations would be to invite further possible failures, with their attendant destruction. It would be irresponsible of the Congress to fail to make funding of these repairs available as needed. The funds should be available in order to proceed in a timely manner with such repairs. I support the increased authorization provided in S. 959.

Thank you for this opportunity to present my views on these important bills.

PREPARED STATEMENT OF HON. MARK ANDREWS, A U.S. SENATOR FROM THE STATE OF NORTH DAKOTA

Mr. Chairman, I appreciate your advising me of your Subcommittee hearings seeking reauthorization of construction funds to continue work under the Reclamation Safety of Dams Act.

Two of the 48 dams which the Bureau of Reclamation says may need modification are in my state—the Heart Butte Dam in western North Dakota and Jamestown Dam, in the east-central part of the state on the James River.

While my understanding is that these two structures are not in immediate need of work, I think it is imperative that this program receive the authorization and subsequent appropriations required as that the modifications can be completed in a timely manner.

The vast benefits realized from our system of dams is already a great success story. The relatively small cost involved in making certain they are safe is well worth the public investment.

Mr. Chairman, I can't help but applaud the accomplishments of the national policy of many years back which made it possible to build flood-control dams, most of which provided multiple benefits, such as recreation facilities, fish and wildlife enhancement, municipal and industrial water supply, downstream navigation and irrigation.

In view of the buildup in recent years of strong environmental opposition to practically any water project, I suspect we may be near the end of any new, major progress in this important area.

Your subcommittee has the responsibility to make certain that those projects which have been completed are kept in proper condition so as to insure their continued contribution to the public good.

You have my support, and I'm sure the support of a great many of our colleagues. I will be helping in any way possible.

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, D.C., April 20, 1982.

Hon. FRANK MURKOWSKI,
Chairman, Subcommittee on Water and Power, Committee on Energy and Natural Resources, A420 Immigration, Washington, D.C.

DEAR MR. CHAIRMAN: I would like to take this opportunity to express my support for S. 956, a bill to amend the Reclamation Safety of Dams Act of 1978 to authorize additional appropriations and for other purposes. It is essential that the dams already constructed be maintained in good condition.

be maintained in good condition.

As a Senator from South Dakota which has several dams that fall under the Reclamation Safety of Dams Act of 1978, I am very concerned about the maintenance of these facilities. The Commissioner of the Bureau of Reclamation has reported to Congress proposed modifications for the Deerfield dam of the Rapid Valley Unit in South Dakota. In addition to the modifications needed at Deerfield dam, the Pactola dam in the Rapid Valley Unit also requires modifications for safety purposes.

The Deerfield and Pactola dams were constructed in the 1950's to provide flood control and water for irrigation and municipal and industrial uses. The dams are essential for the water supply of Rapid City in South Dakota and for irrigators in the area. The dams have also prevented millions of dollars in flood damages. However, to continue to insure adequate flood protection, the dams must be modified.

The needed modifications for these dams and others in South Dakota and the entire nation may not be possible unless additional funds can be authorized. The 1978 Act authorized necessary modifications for safety of dams purposes, but funding was limited to $100,000,000, which may not be adequate to accomplish the tasks. We cannot afford to let our nation's dams deteriorate. We must maintain them to meet safety requirements.

I thank you for this opportunity to express my views. I appreciate your consideration of this important matter.

Sincerely,

LARRY PRESSLER,
U.S. Senator.

PREPARED STATEMENT OF THE ASSOCIATION OF CALIFORNIA WATER AGENCIES ON S. 956

The Association of California Water Agencies appreciates this opportunity to appear before your Subcommittee in support of S. 956, a bill to increase the authorization for appropriations under the Reclamation Safety of Dams Act of 1978. The Association is composed of two hundred and eighty publically-owned water agencies throughout California including almost all agencies that contract with the Bureau of Reclamation for service from Bureau projects.

S. 956 would increase the authorization for appropriations from $100 million to $450 million in the existing law. As the data available from the Bureau of Reclamation estimates that the proposed modification program for future work totals $327 million, we question whether a margin of just over $20 million is adequate to provide for future price increases and additional unexpected costs, and recommend that the amount be increased and that an escalator or indexing provision be included.

Seven reclamation dams in California are included among the twenty-seven proposed for modification by the Bureau of Reclamation. These range from the largest and most important structures of the Central Valley Project such as Shasta, Trinity, and Friant Dams, to relatively small structures. The heavy precipitation we are experiencing in California this winter season is not unusual, and the flood control capability of these dams is frequently fully utilized. Under severe conditions, the integrity of the dams and their operational capability is essential. There can be no question about the issue of safety. Protection of lives and property must be the number one priority in their design and operation and, as the science of hydrology advances and the potential threat to structural safety is better under stood, this work must be undertaken.

This Committee recognized that adopting the 1978 Act directing the Secretary of the Interior to undertake any necessary programs. While Congress is being asked today to limit Federal expenditures to an unprecedented degree, dam safety is not an issue where cutting corners can be accepted.

We also support the determination of Congress in the 1978 Act with respect to the responsibility of the United States for implementing these modifications. Section 4(b) of the Act reads: "Costs heretofore or hereafter incurred in the modification of structures under this Act, the cause of which results from new hydrologic or seismic data or changes in state-of-the-art criteria deemed necessary for safety purposes shall be nonreimbursable and nonreturnable under the Federal Reclamation law." This language recognizes that work necessary to maintain the integrity of the structure resulting from advances in technology is the responsibility the Federal Government. We believe this to be sound policy and support its continuation.

We urge your approval of S. 956 with the amendment recommended.

COLORADO RIVER COMMISSION,
Las Vegas, Nev., April 14, 1982.

Hon. JAMES A. MCCLURE,
Chairman, Senate Committee on Energy and Natural Resources, Dirksen Office Building, Room 3121, Washington, D.C.

DEAR SENATOR MCCLURE: Enclosed is a copy of Resolution 82-5 adopted by the Colorado River Commission of Nevada on April 14, 1982.

The Resolution supports the provisions of Senate Bill S. 1621 and House Bill H.R. 5569 which will authorizes non-reimbursable funds for the Secretary of Interior to purchase the stainless steel casings. The Resolution also urges the prompt consideration and enactment of these bills.

Sincerely,

JACK LEHMAN,
Chairman Colorado River Commission.

Enclosure.

82-5 RESOLUTION: COLORADO RIVER COMMISSION OF NEVADA

Whereas, pursuant to P.L. 98-292 construction of the first stage facilities of the Southern Nevada Water Project was completed by the United States Bureau of Reclamation (Bureau) in November of 1971; and

Whereas the Bureau, under Solicitation No. DS-6637, furnished and installed the pumps, motors, and appurtenant equipment for the 50 cfs, 2500 horsepower pumping units located in Pumping Plants 1A and 2A; and

Whereas in January 1973, a unit was dismantled because of the development of abnormal operational noises after performing for approximately 2,100 hours; and

Whereas excessive pump damage was discovered due to cavitation; and

Whereas the one-year warranty with the contractor, Hitachi America, Ltd., had expired; and

Whereas subsequent maintenance and rehabilitation expenses have been excessive, costing Hitachi approximately $1,000,000, the water user $300,000, and the Bureau $150,000; and

Whereas testing of the pumping units has resulted in the conclusion that stainless steel pump casings are required to replace the existing cast iron casings as a reasonable and most economical solution to the problem; and

Whereas Senate Bill S. 1621 and House Bill H.R. 5569 have been introduced in the United States Congress which will authorize non-reimbursable funds for the Secretary of Interior to purchase the stainless steel casings; and

Whereas the water users have agreed to absorb the cost of the installation of the stainless steel casings and perform the necessary rehabilitation work: Now, therefore, be it

Resolved, The Colorado River Commission of Nevada supports the provisions of Senate Bill S. 1621 and House Bill H.R. 5569 and urges their prompt consideration and enactment; and be it further

Resolved, That a copy of this Resolution be sent to Governer Robert List, Senator Howard W. Cannon, Senator Paul Laxalt, Congressman James D. Santini, United States Secretary of Interior James G. Watt, and Senator James A. McClure (Chairman, Senate Committee on Energy and Natural Resources); Congressman Morris K.

Udall (Chairman, House Committee on Interior and Insular Affairs); Senator Frank H. Murkowski (Chairman, Senate Subcommittee on Water and Power); Congressman Abraham Kazen, Jr. (Chairman, House Subcommittee on Water and Power Resources); and Commissioner Robert N. Broadbent, (U.S. Bureau of Reclamation).

Adopted and passed at a regular meeting of the Colorado River Commission of Nevada on April 14, 1982.

○